

**Figures**

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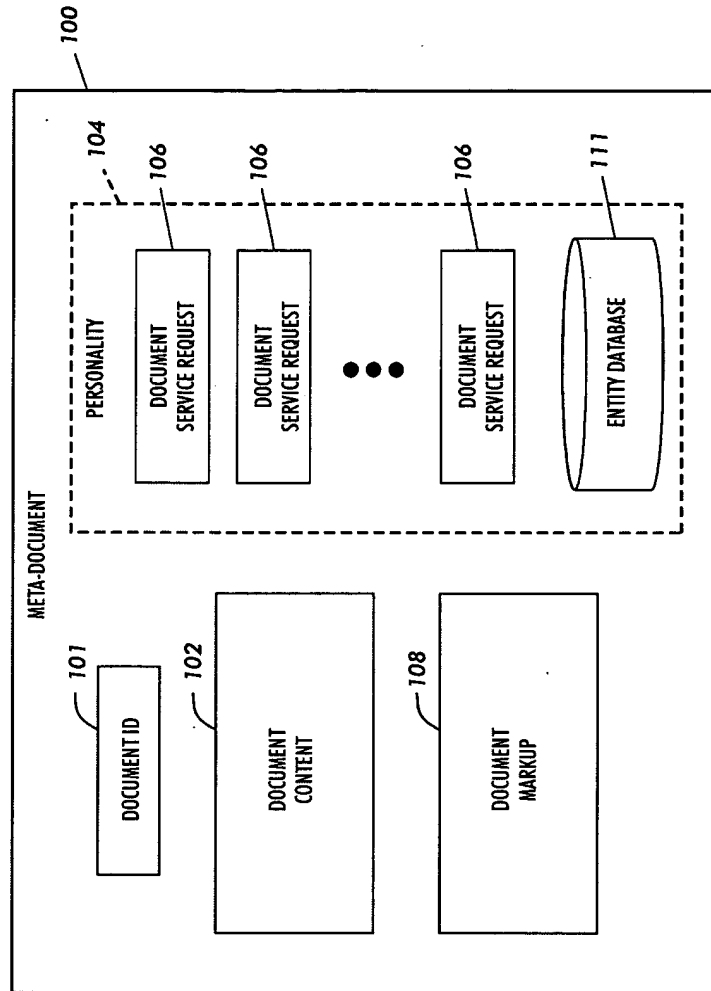


FIG. 1

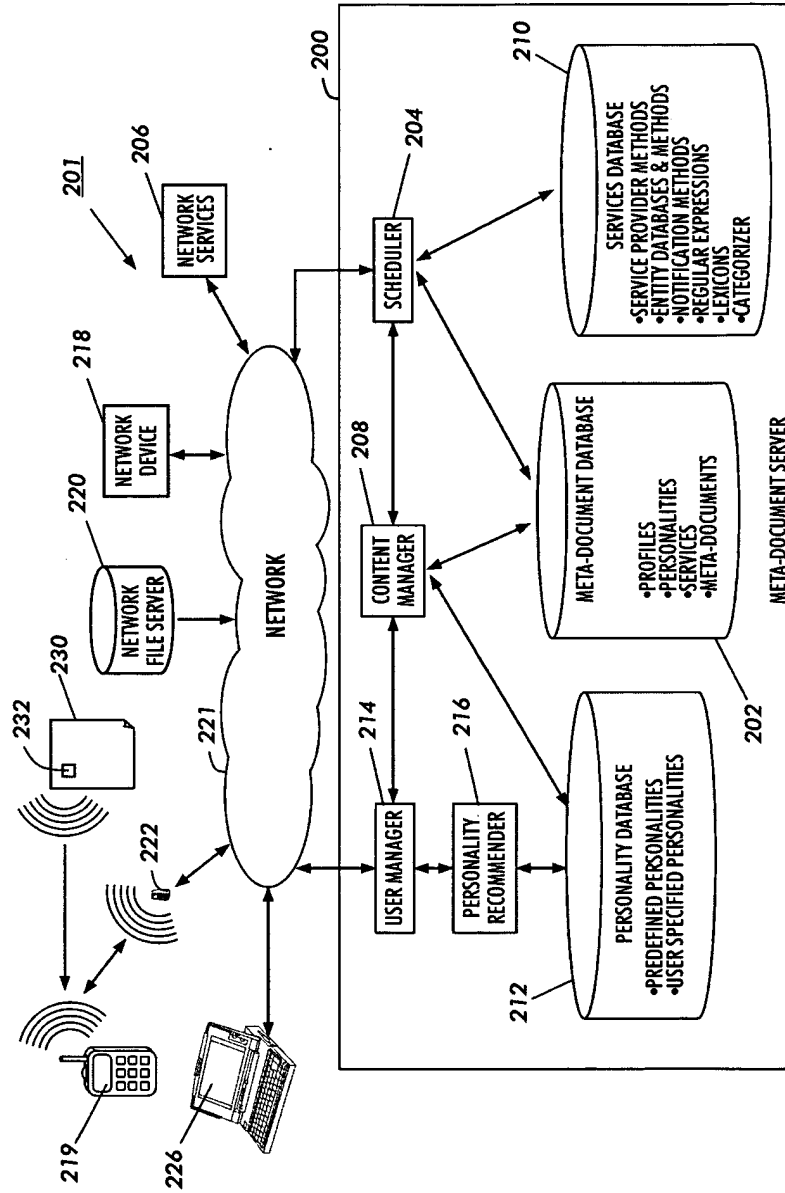


FIG. 2

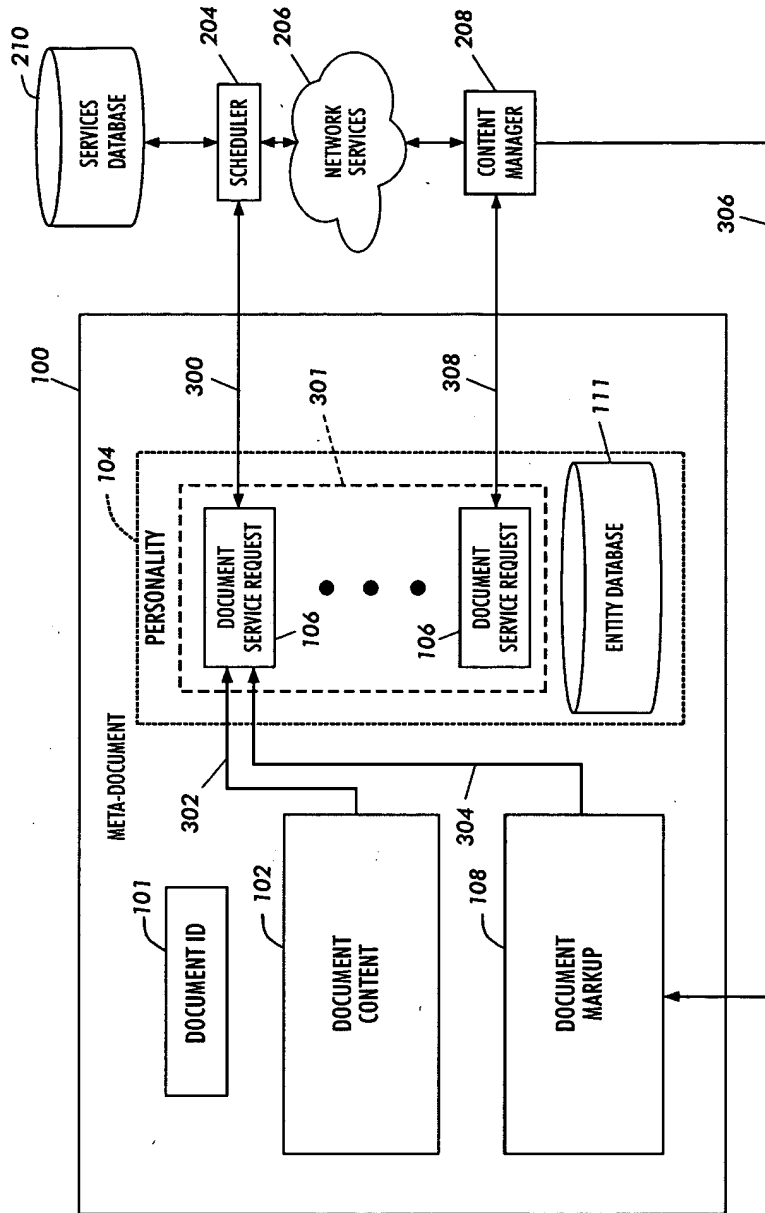


FIG. 3

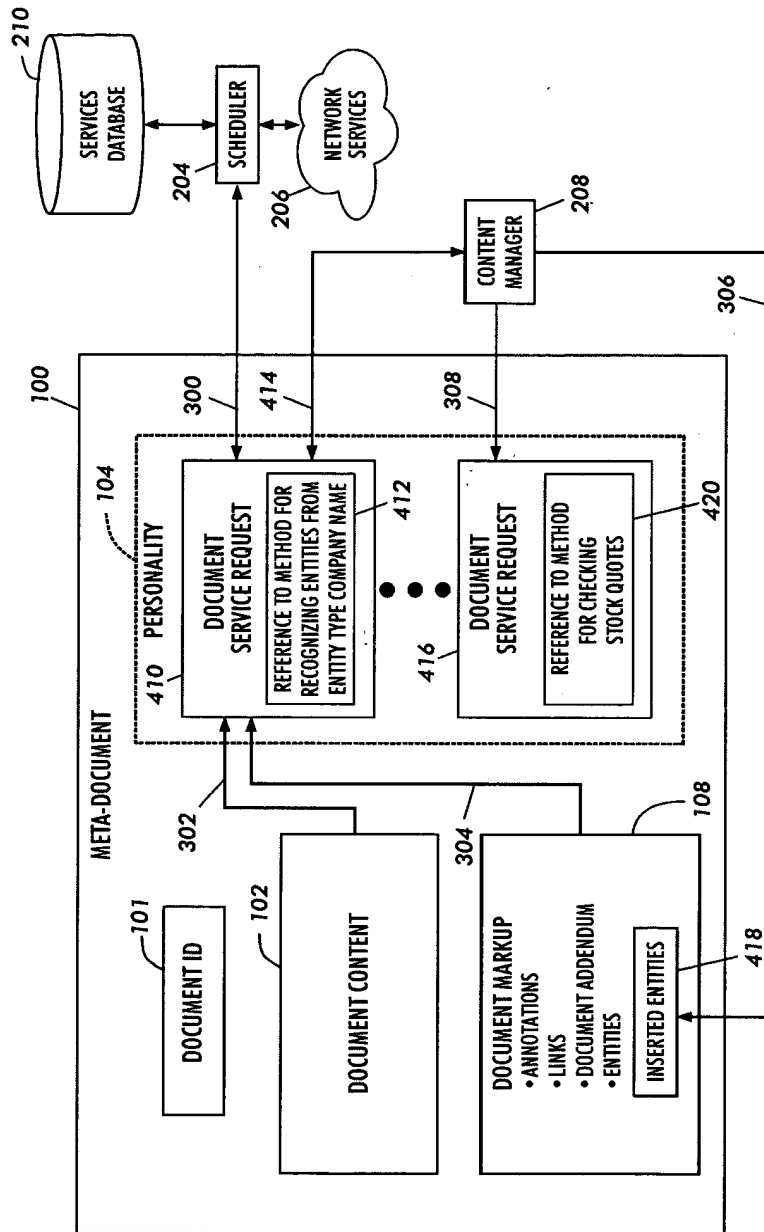


FIG. 4

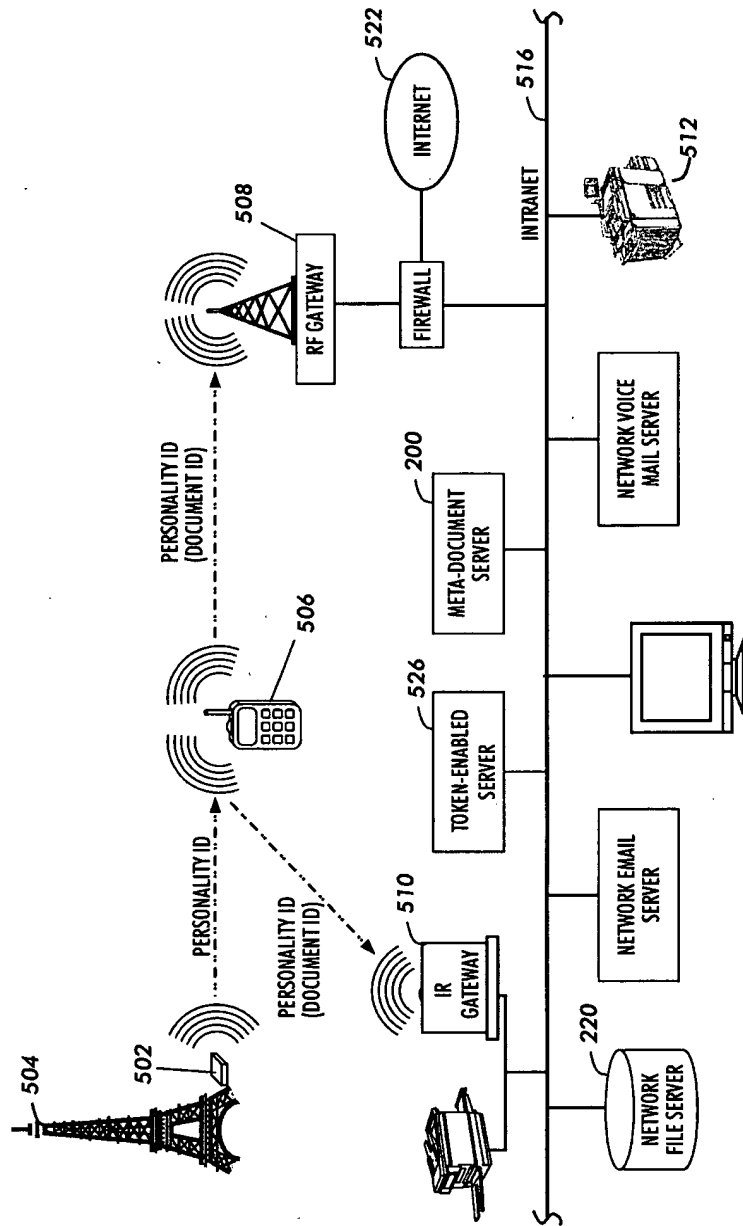
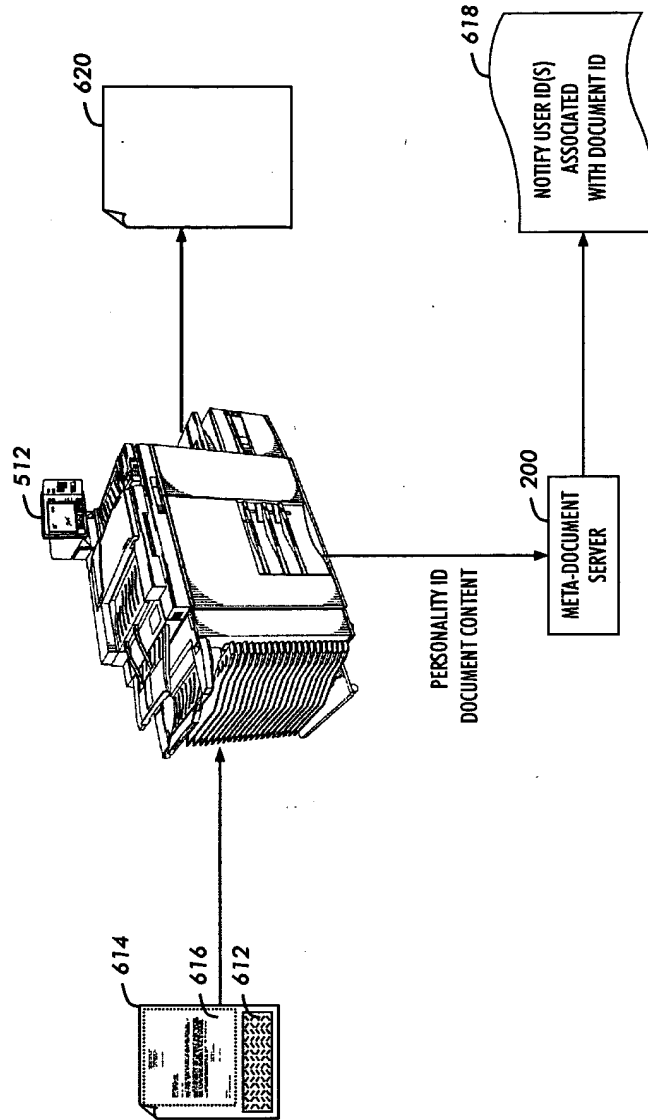
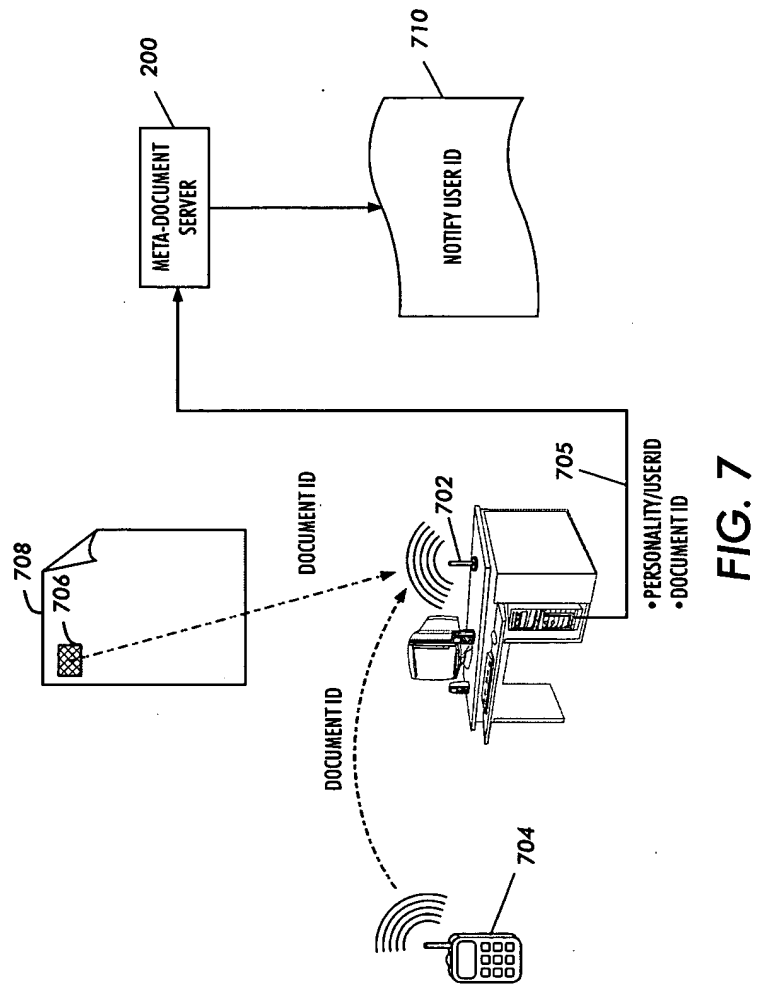


FIG. 5





**PRINT** [?] [X]

**PRINTER**

NAME: \\BOUILLANTE\TIMES [PROPERTIES] 814

STATUS: IDLE

TYPE: XEROX 4517 POSTSCRIPT LEVEL 2

WHERE: TIMES.GRENOBLE.XRCE.XEROX.COM:PASSTHRU ☐ PRINT TO FILE

COMMENT: XEROX N2125 B&W DUPLEX - LE CHATEAU - 2ND FLOOR

**PAGE RANGE**

☒ ALL  
☐ CURRENT PAGE ☐ SELECTION  
☐ PAGES: [ ]

ENTER PAGE NUMBERS AND/OR PAGE RANGES SEPERATED BY COMMAS. FOR EXAMPLE 1,3,5-12 804

**COPIES**

NUMBER OF COPIES: [1] 806

☒ COLLATE

**ENRICHMENT**

☒ PERSONALITY: BUSINESS ☐ SELECT A PERSONALITY FOR ME

**APPLY ENRICHMENT TO:**

☒ ALL  
☐ CURRENT PAGE ☐ SELECTION  
☐ PAGES: [ ]

**INSERT ENRICHMENT AS:**

☒ LINKS  
☐ CONTENT [OPTIONS...] 810

**808**

PRINT WHAT: DOCUMENT PAGES PER SHEET: 1 PAGE 802

PRINT: ALL PAGES IN RANGE SCALE TO PAPER SIZE: NO SCALING 810

[OPTIONS...] [OK] [CANCEL]

800

FIG. 8

PRINT DOCUMENT PROPERTIES

LAYOUT PAPER/QUALITY ENRICHMENT

902 PERSONALITY: BUSINESS SELECT PERSONALITY FOR ME 900

PROVIDE ENRICHMENT BY: 901

PRINTING WITH DOCUMENT  
STORING AT SERVER

INSERT ENRICHMENT AS:

LINKS  
CONTENT

WHEN STORING ENRICHMENT AT SERVER: 904

EMAIL ME WHEN COMPLETED  
ADDRESS: 906

DO NOT NOTIFY ME

CAPTURE POINT: 908

AT WORKSTATION  
AT PRINT SERVER

ADVANCED

OK CANCEL

FIG. 9



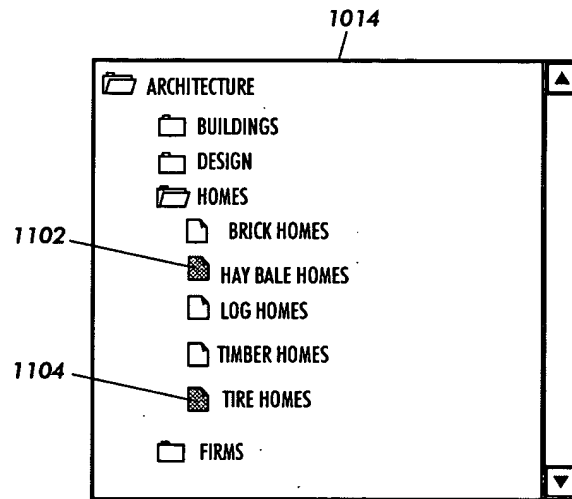


FIG. 11

12/69

1210

PROPERTIES FOR USER JSMITH

LAYOUT SHARING PERSONALITIES 1214

1212

☒ DEFAULT: ANALYST

☐ RECOMMEND PERSONALITY FOR ME 1220

1230

PROPAGATE ENRICHMENT BETWEEN DOCUMENTS:

☒ NO

☐ YES

1204

1222

1224

1226

INSERT ENRICHMENT AS:

☒ LINKS

☐ CONTENT

☐ AUTOMATICALLY DETERMINE TO LINK OR INSERT CONTENT

1205

1206

1207

WHEN DOCUMENT ENRICHED NOTIFY ME BY:

☐ VOICE MESSAGE

☒ EMAIL

☐ SMS TEXT MESSAGE

1242

AUTOMATICALLY COMPLETE CITATIONS:

☒ NO

☐ YES, DEPTH: 4

1240

ORGANIZE MY PERSONALITIES

CREATE/MODIFY MY PERSONALITIES

1216

OK CANCEL

FIG. 12

**FIG. 13**

**FIG. 13**



1502

The screenshot shows a window titled "CREATE/MODIFY MY PERSONALITIES" with a standard Windows-style title bar (minimize, maximize, close buttons). The window contains the following elements:

- NAME:** A label followed by a "BROWSE" button and a text input field (1504).
- Radio Buttons:** Four radio buttons are arranged vertically, each followed by a text box:
  - ☒ **CREATE/MODIFY A GROUP OF EXISTING PERSONALITIES** (1506)
  - ☐ **USE SELECTED DOCUMENTS AND/OR FOLDERS TO CREATE A NEW PERSONALITY** (1508). This box contains a "BROWSE" button and a text input field (1509).
  - ☐ **USE SELECTED FILE/WEBSITE TO CREATE A NEW PERSONALITY** (1510). This box contains a "BROWSE" button and a text input field.
  - ☐ **CREATE QUESTION FORM USING PERSONALITY LEXICONS** (1520). This box contains a "QUESTION:" label and a text input field.
- Hint:** A label followed by a text input field (1514).
- 1516 KNOWLEDGE LEVEL:** A label with a pointer to the "NOVICE" radio button.
- Radio Buttons:** Two radio buttons for knowledge level:
  - ☒ **NOVICE**
  - ☐ **EXPERT**
- Buttons:** "OK" and "CANCEL" buttons (1512).

FIG. 15

1600

CREATE/MODIFY A GROUP OF EXISTING PERSONALITIES

NAME: TECHNOLOGY WATCH IN ORGANIC CHEMISTRY

OPERATION:

☒ MERGE 1602

☐ SUBTRACT 1604

PERSONALITY A ▼

WITH/FROM

PERSONALITY B ▼

OK CANCEL

FIG. 16

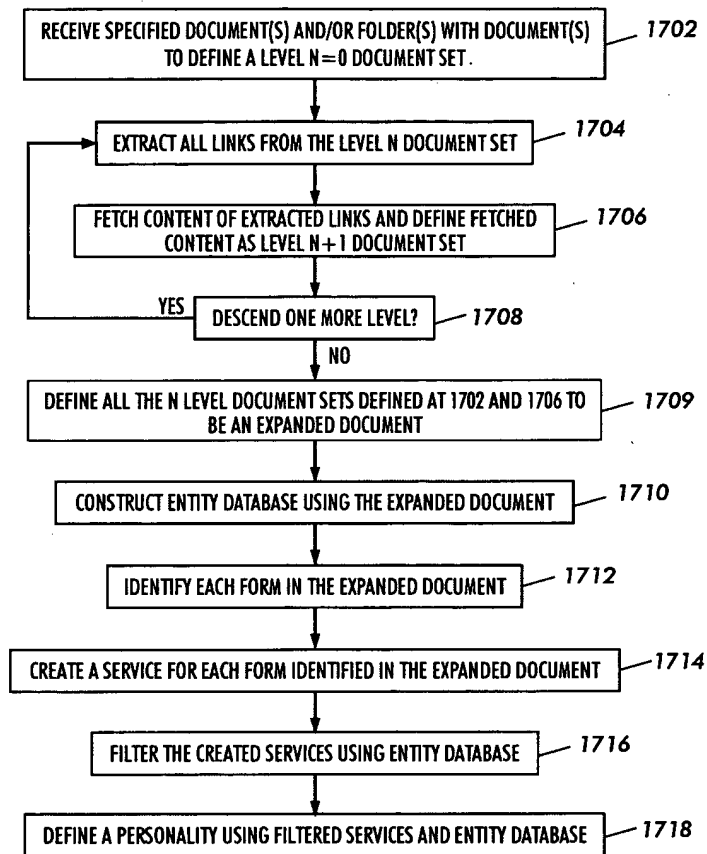


FIG. 17

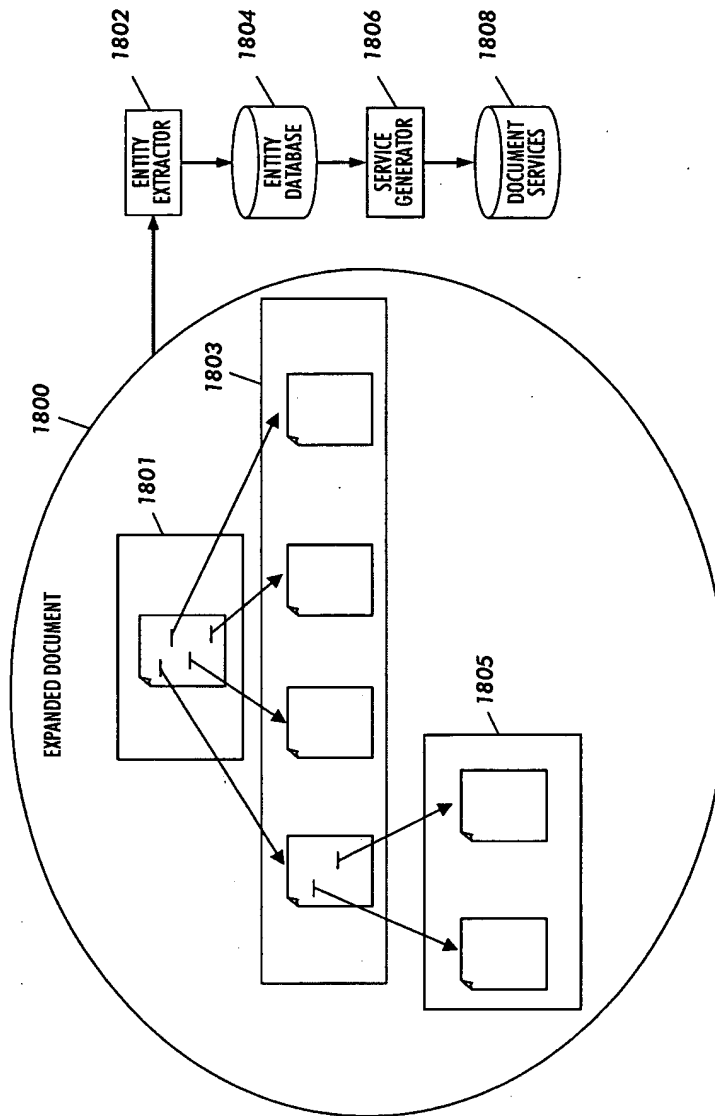


FIG. 18

19/69

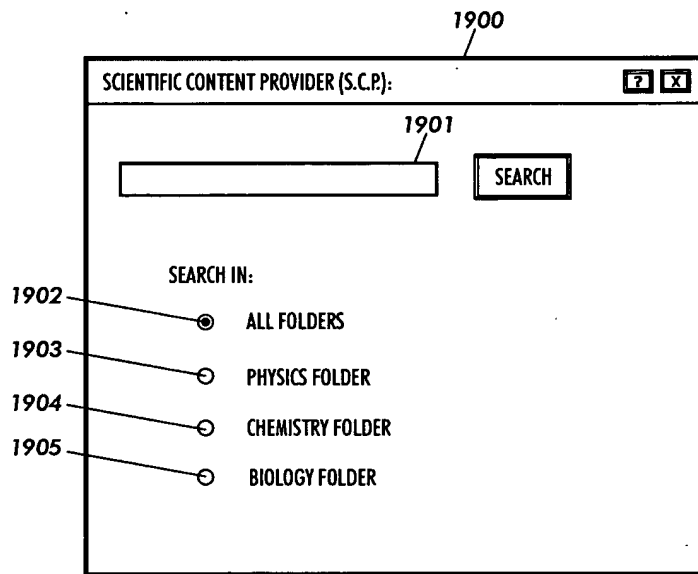


FIG. 19

SCIENTIFIC SEARCH <input type="checkbox"/> <input type="checkbox"/>									
SEL	NAME	ENTITY TYPE	ANNOTATE	DEPTH	PROVIDER	COST	QUERY	REFRESH	
<input checked="" type="checkbox"/>	ALL FOLDERS RESULT OF SCIENTIFIC CONTENT PROVIDER	STANDARD	ALWAYS	0	S.C.P.	FREE	CONTENT	NULL	
<input type="checkbox"/>	PHYSICS RESULT OF SCIENTIFIC CONTENT PROVIDER	PHYSICS	ALWAYS	0	S.C.P.	FREE	CONTENT	NULL	
<input type="checkbox"/>	CHEMISTRY RESULT OF SCIENTIFIC CONTENT PROVIDER	CHEMISTRY	ALWAYS	0	S.C.P.	FREE	CONTENT	NULL	
<input type="checkbox"/>	BIOLOGY RESULT OF SCIENTIFIC CONTENT PROVIDER	BIOLOGY	ALWAYS	0	S.C.P.	FREE	CONTENT	NULL	

2002

2004

FIG. 20

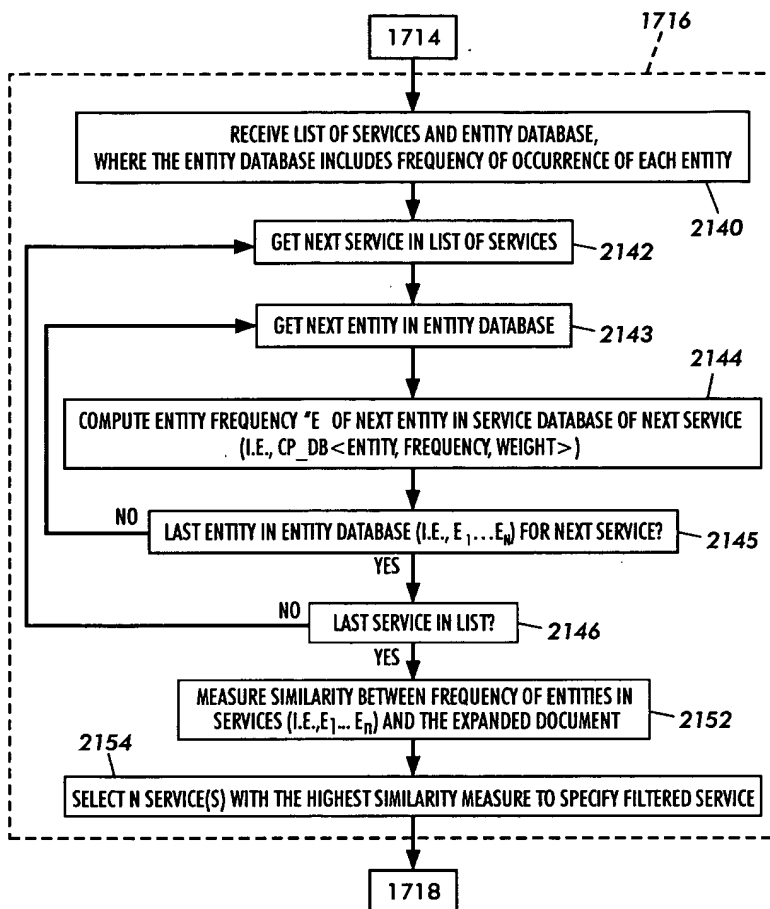


FIG. 21

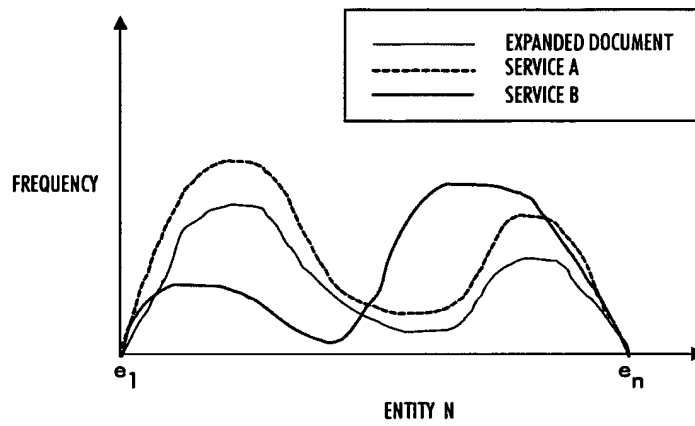


FIG. 22

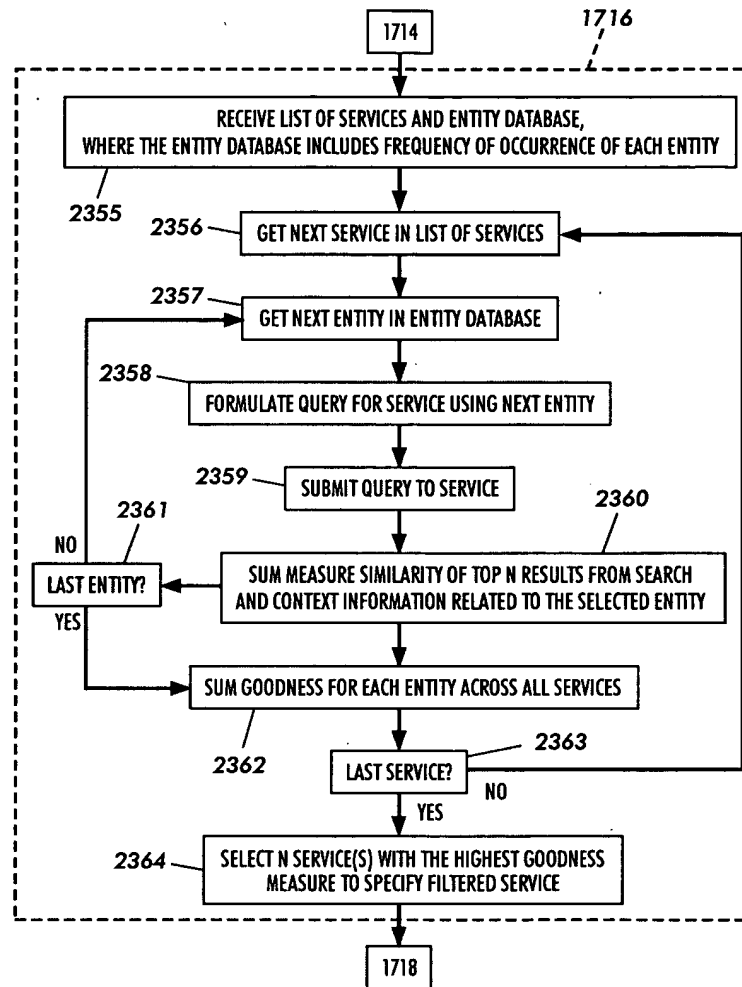


FIG. 23

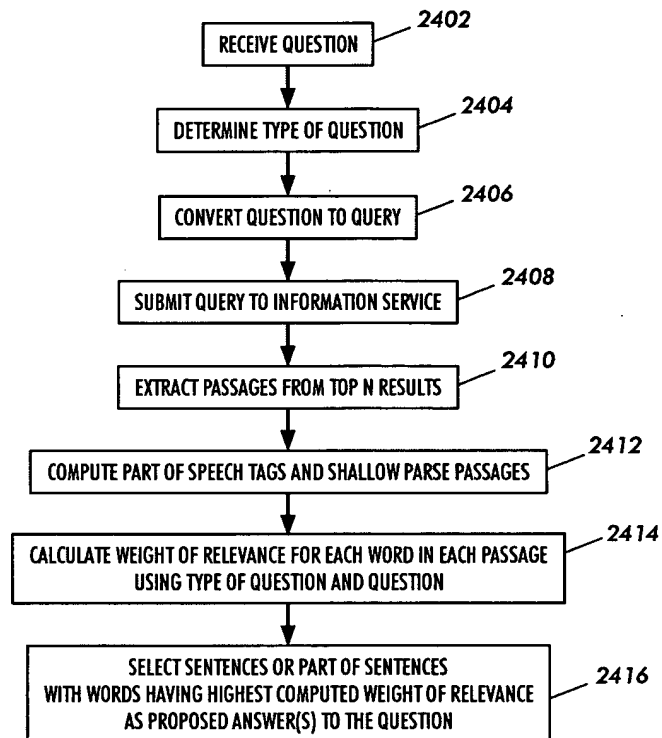


FIG. 24

2502

E-LEARNING SERVICES ASSOCIATED WITH E-LEARNING PERSONALITY	
2504	SEL
2506	<input checked="" type="checkbox"/> LINK WORDS OR MULTIWORD EXPRESSIONS FOUND IN THE DOCUMENT TO THEIR DEFINITIONS
2508	<input type="checkbox"/> LINK WORDS OR MULTIWORD EXPRESSIONS FOUND IN THE DOCUMENT TO THEIR TRANSLATIONS
2510	<input type="checkbox"/> LINK EACH TEXT UNIT (I.E., DOCUMENT, PARAGRAPH, PHRASE, WORD) TO A TUTORIAL CONCERNING EACH TEXT UNIT
2512	<input type="checkbox"/> LINK EACH TEXT UNIT (I.E., DOCUMENT, PARAGRAPH, PHRASE, WORD) TO AN EXPERT CONCERNING IDENTIFIED SUBJECTS
2514	<input type="checkbox"/> LINK EACH TEXT UNIT (I.E., DOCUMENT, PARAGRAPH, PHRASE, WORD) TO AN INTERACTIVE COURSE ABOUT IDENTIFIED SUBJECTS
2516	<input checked="" type="checkbox"/> LINK EACH TEXT UNIT (I.E., DOCUMENT, PARAGRAPH, PHRASE, WORD) TO A LIST OF REAL WORLD CLASSES ABOUT IDENTIFIED SUBJECTS
	<input checked="" type="checkbox"/> LINK TEXT UNITS TO (I.E., DOCUMENT, PARAGRAPH, PHRASE, WORD) LEARNING RESOURCES CONCERNING EACH TEXT UNITS

FIG. 25

2602

LANGUAGE LEARNING SERVICES ASSOCIATED WITH LANGUAGE LEARNING PERSONALITY	
<input checked="" type="checkbox"/>	SEL
<input checked="" type="checkbox"/>	LINK WORDS OR MULTWORD EXPRESSIONS FOUND IN THE DOCUMENT TO THEIR DEFINITIONS
<input type="checkbox"/>	LINK WORDS OR MULTWORD EXPRESSIONS FOUND IN THE DOCUMENT TO THEIR TRANSLATIONS
<input type="checkbox"/>	LINK EACH SENTENCE, OR PHRASE, TO A GRAMMATICAL DESCRIPTION OF THE STRUCTURE OF THE SENTENCE OR PHRASE
<input type="checkbox"/>	LINK EACH WORD, MULTWORD EXPRESSION, PHRASE OR SENTENCE TO OTHER INSTANCES OF THE SAME IN DIFFERENT CONTEXTS FROM THE PRESENT
<input type="checkbox"/>	LINK EACH WORD, MULTWORD EXPRESSION, PHRASE OR SENTENCE TO ONE OR MORE INTERACTIVE GRAMMAR EXERCISES CONCERNING THAT ELEMENT
<input checked="" type="checkbox"/>	LINK EACH TEXT UNIT (I.E., DOCUMENT, PARAGRAPH, PHRASE, WORD) TO A LIST OF REAL WORLD CLASSES ABOUT IDENTIFIED LANGUAGE
<input checked="" type="checkbox"/>	LINK TEXT UNITS TO (I.E., DOCUMENT, PARAGRAPH, PHRASE, WORD) LANGUAGE LEARNING RESOURCES CONCERNING EACH TEXT UNITS

FIG. 26

2710

STOCK QUOTE OPTIONS

2718 2720

PROPERTIES

UPDATE FREQUENCY: EVERYDAY ▼

INSERT INFORMATION AS:

2714 STATIC ▼ ○ LINK ● CONTENT AS FOOTNOTE ▼ ○ DETERMINE AUTOMATICALLY

2716 2724

APPLY SERVICE BEHAVIOR TO

○ ALL DOCUMENTS

● CURRENT DOCUMENT 2712

○ SELECTION ONLY

OK CANCEL

FIG. 27

2800

2802

2804

2806

2810

2808

2807

2805

2803

2811

ANNOTATE PROPERTY

ANNOTATE ENTITIES WHEN:

2802 ALWAYS

2804 EXPERT MODE:

2806 NOVICE MODE:

2808 CHANGE REFERENCE

2807

2805

2803

2811

AND

2810

OK

CANCEL

ANNOTATE ONLY THOSE ENTITIES THAT OCCUR WITH A FREQUENCY LESS THAN: 4 IN THE REFERENCE DOCUMENT(S) AND/OR DATABASE(S) AT WWW.XRCE.XEROX.COM/DB/EXPERT.

ANNOTATE ONLY THOSE ENTITIES THAT OCCUR WITH A FREQUENCY GREATER THAN: 20 IN THE REFERENCE DOCUMENT(S) AND/OR DATABASE(S) AT WWW.XRCE.XEROX.COM/DB/NOVICE.

ANNOTATE ENTITY WHEN IT APPEARS IN DOCUMENT CONTENT WITH A FREQUENCY GREATER THAN: 4.

FIG. 28

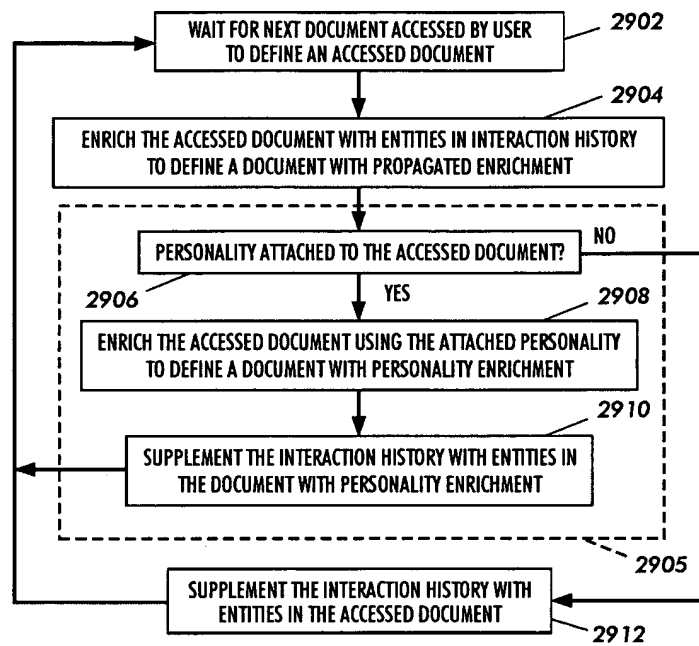


FIG. 29

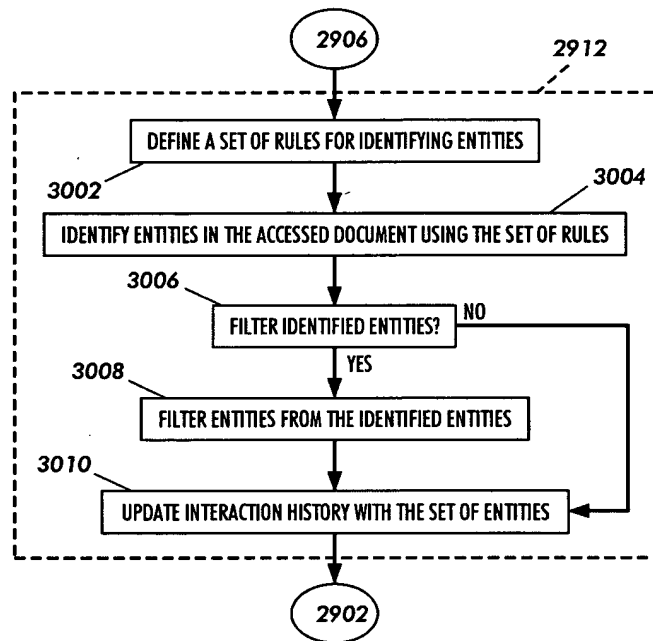


FIG. 30

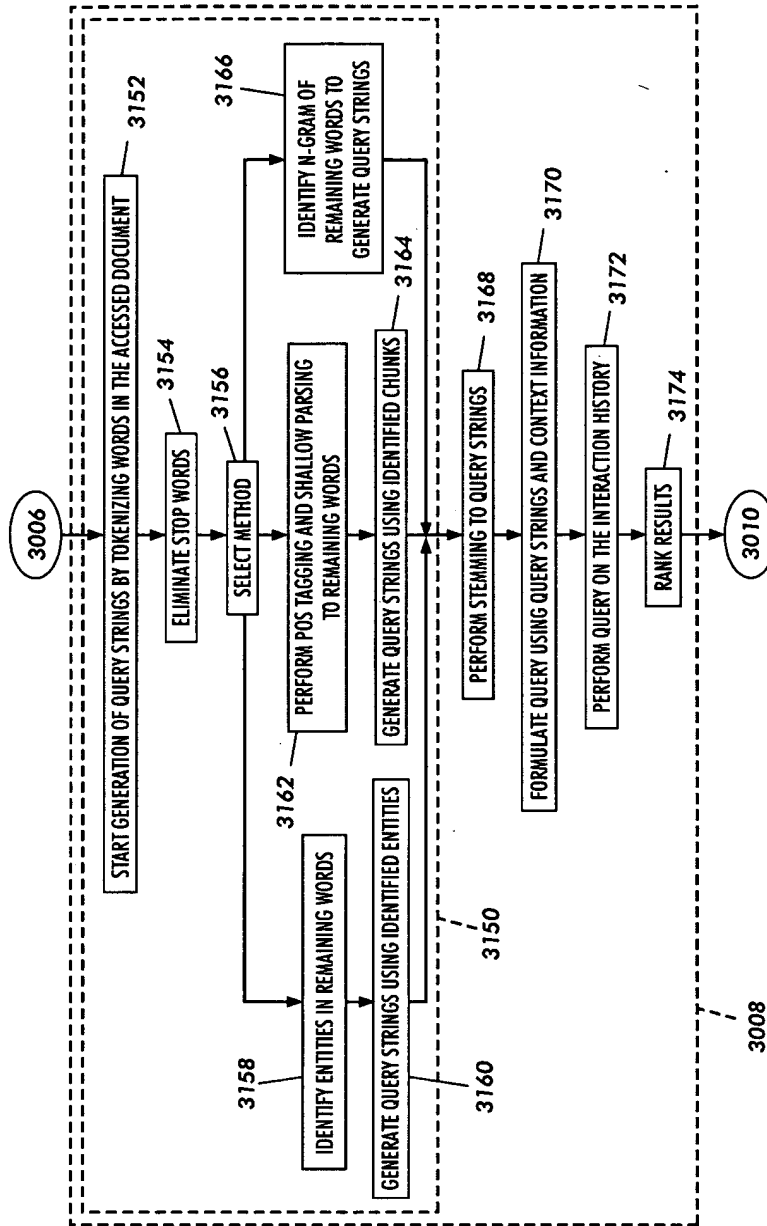


FIG. 31

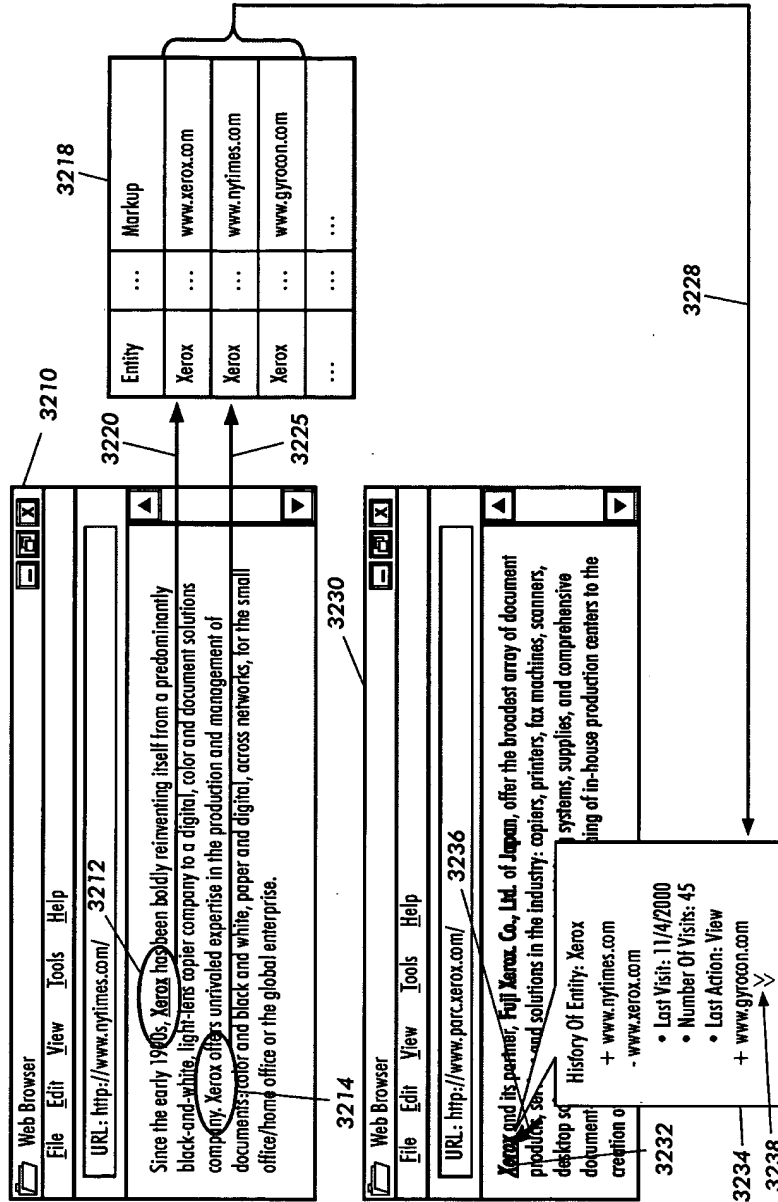


FIG. 32

3218

ENTITY	ENTITY TYPE	VISITS	LAST VISIT	ACTION LIST	DMOZ CATEGORY	LOCATION	POS	MARKUP
XEROX	BUSINESS	45	11/4/2000	VIEW (43), PRINT(2)	BUSINESS	40	NOUN	WWW.XEROX.COM
XEROX	BUSINESS	1	5/1/2001	VIEW(1)	FINANCE	689	NOUN	WWW.NYTIMES.COM
XEROX	BUSINESS	4	2/22/2001	EMAIL(1), VIEW(3)	COMPUTER	343	NOUN	WWW.GYROCON.COM
...	...	...	...	...	...	...	...	...

FIG. 33

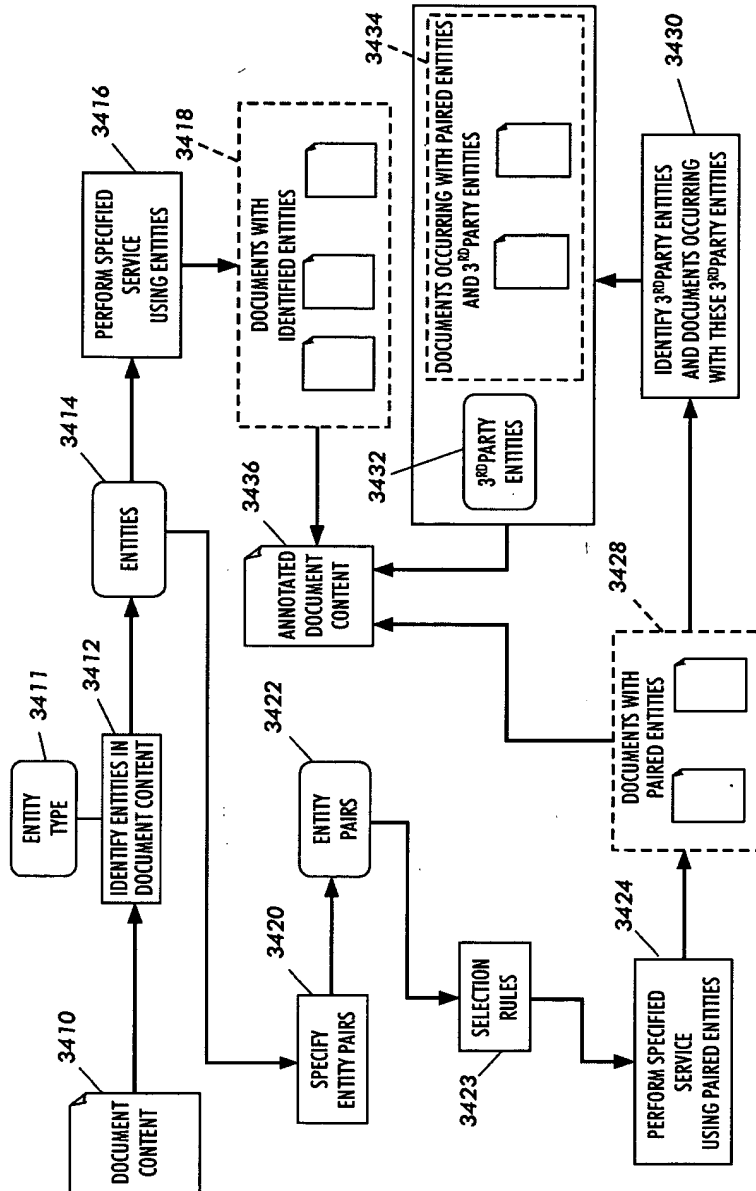


FIG. 34

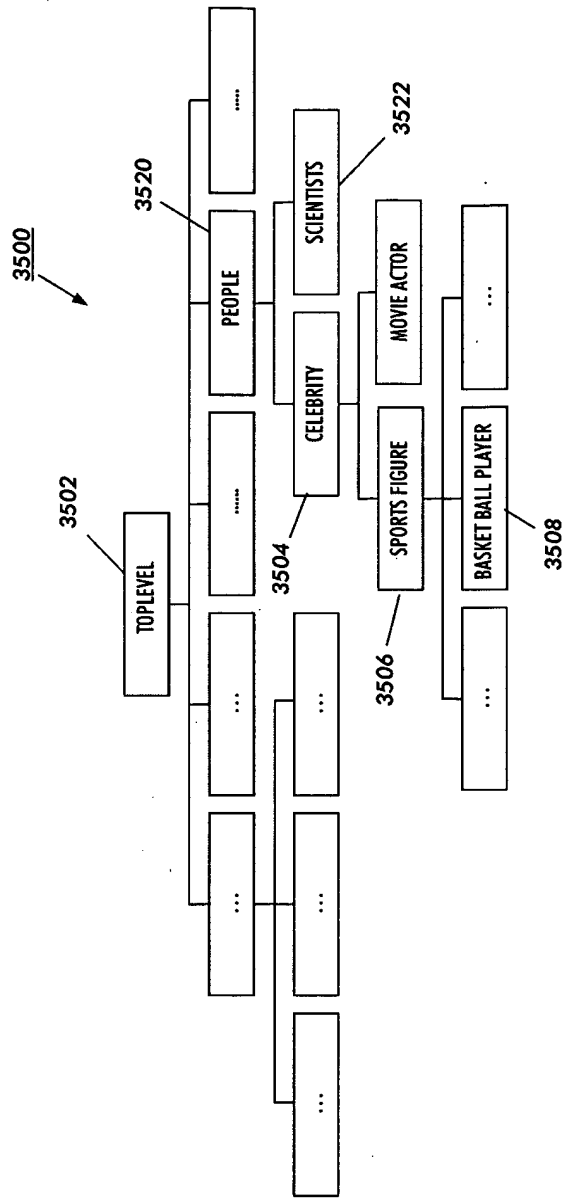


FIG. 35

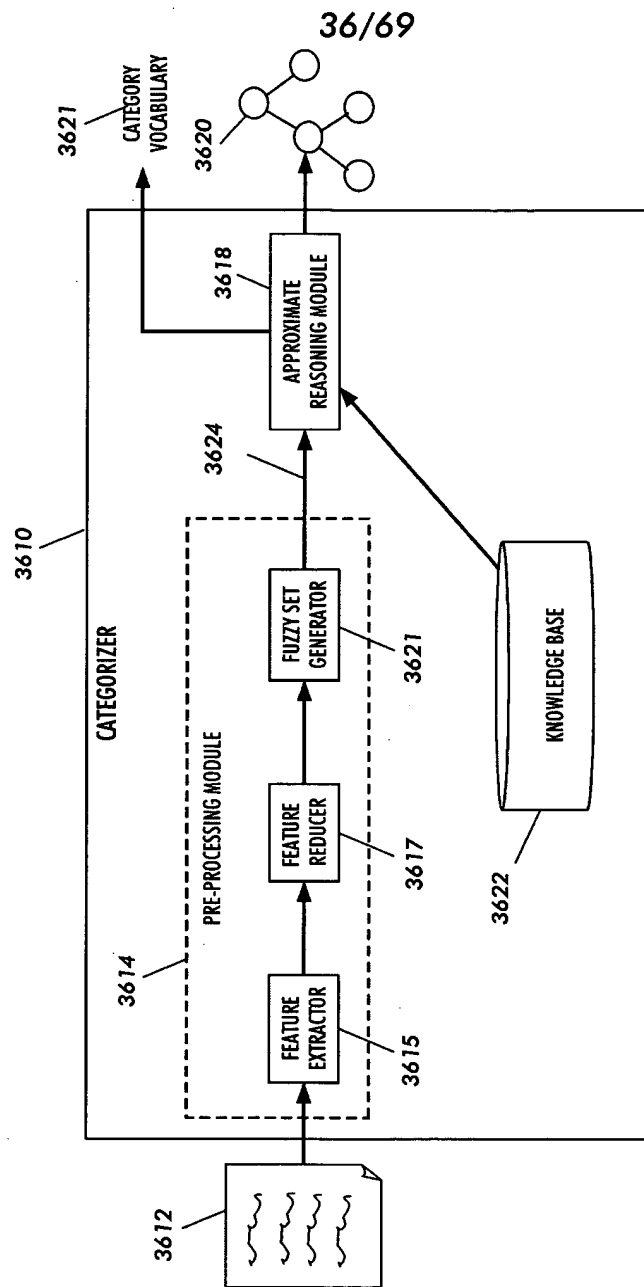


FIG. 36

37/69

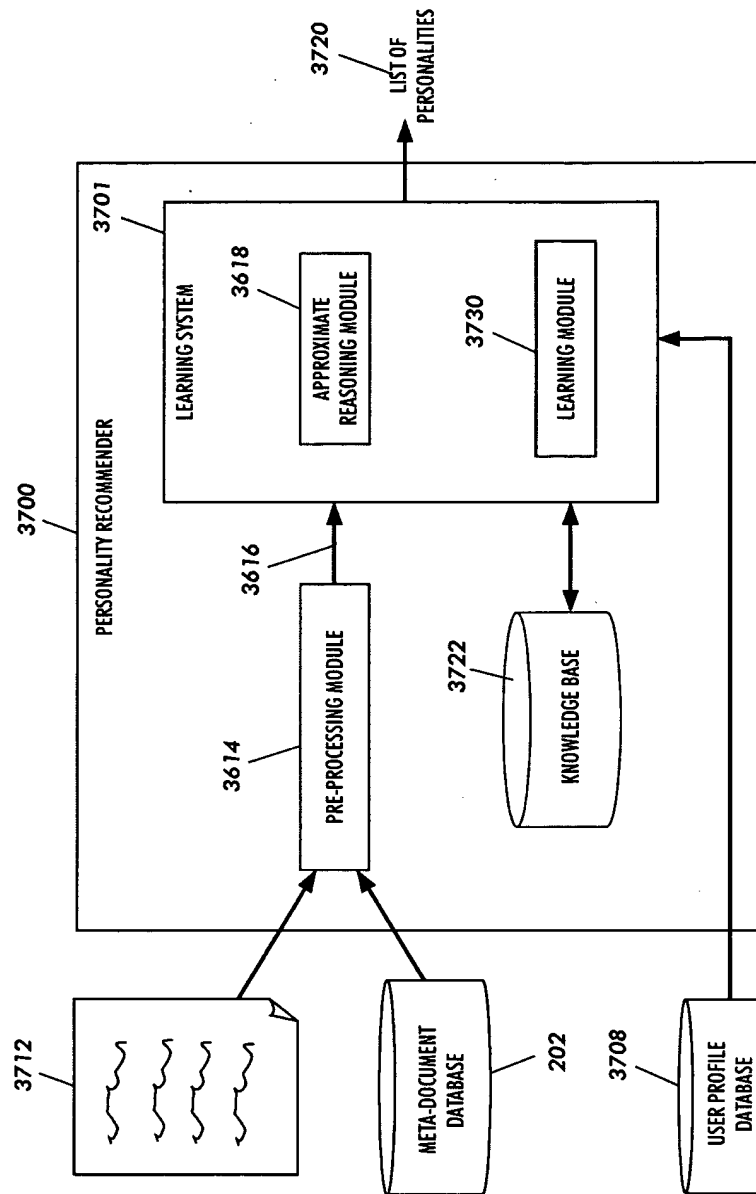


FIG. 37

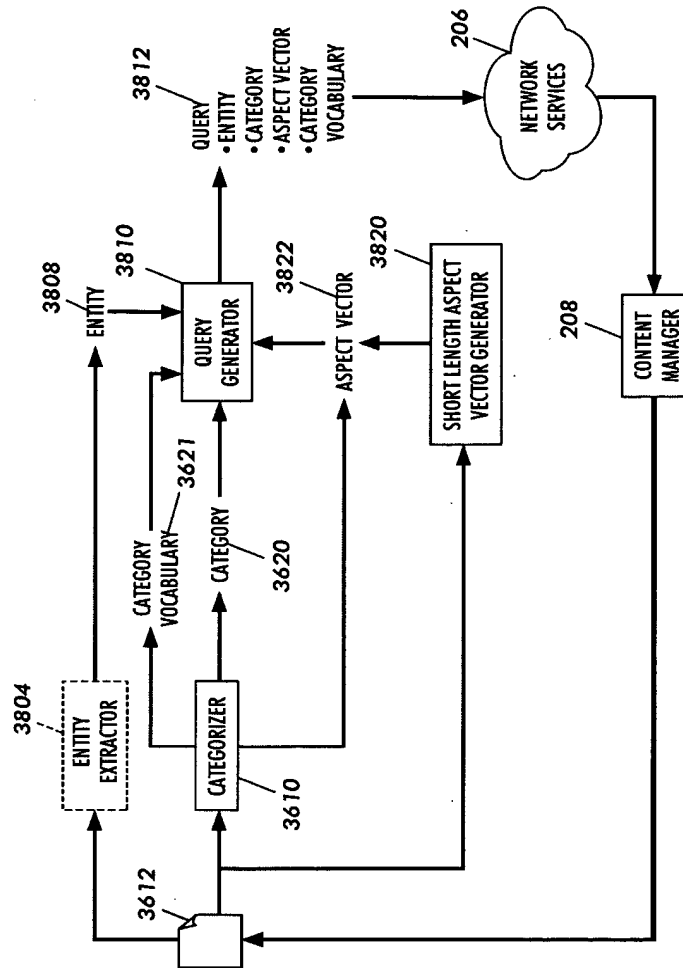


FIG. 38

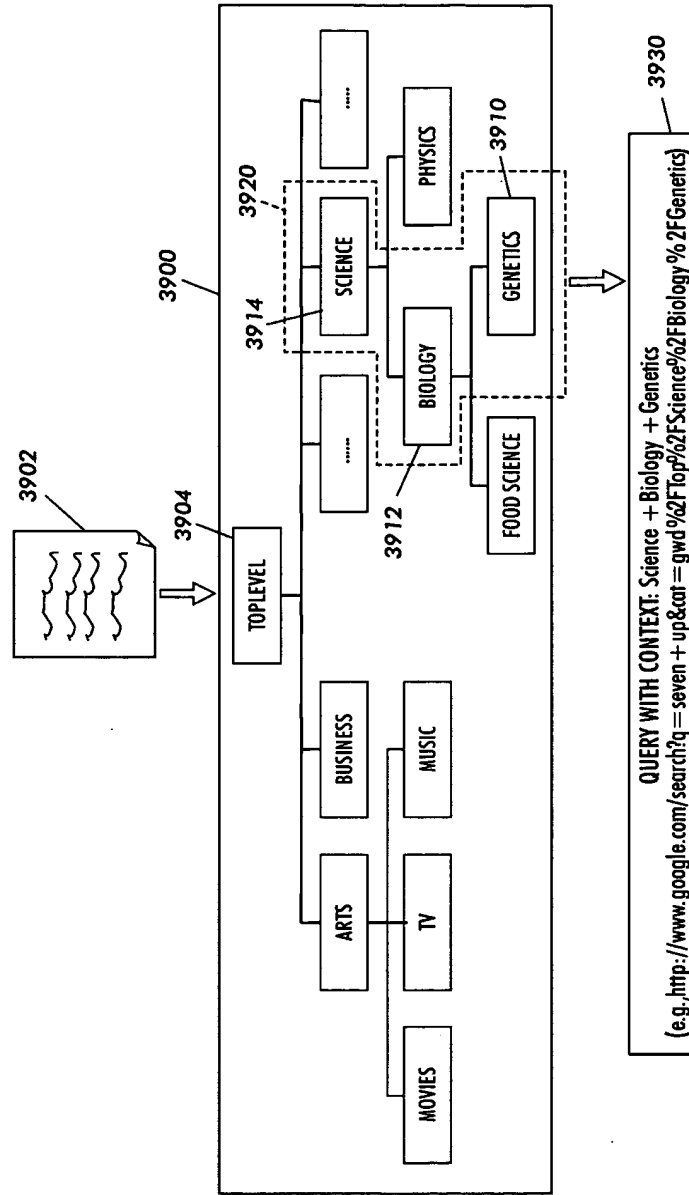


FIG. 39

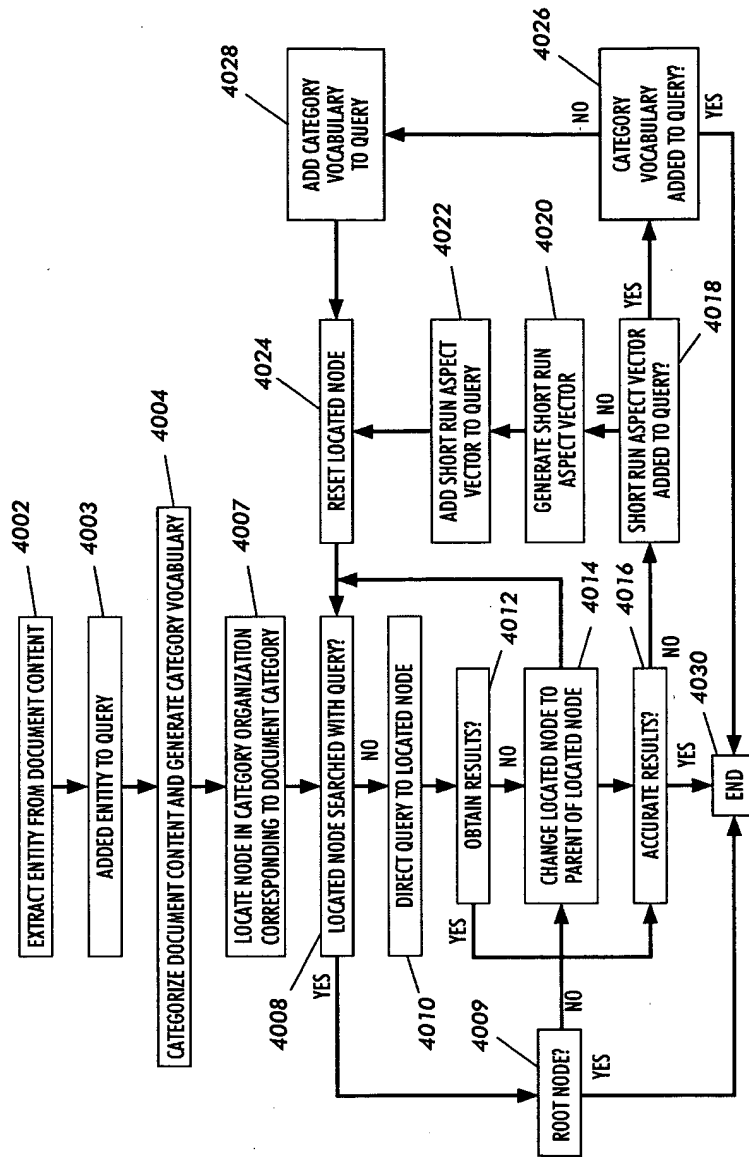


FIG. 40



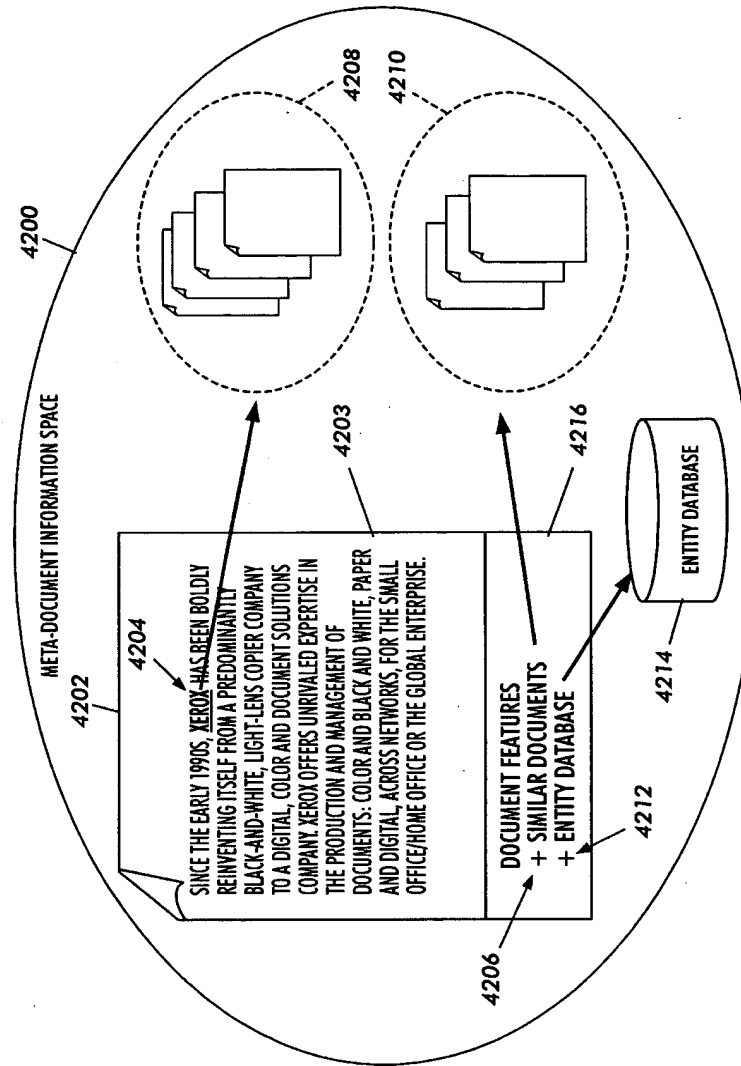


FIG. 42

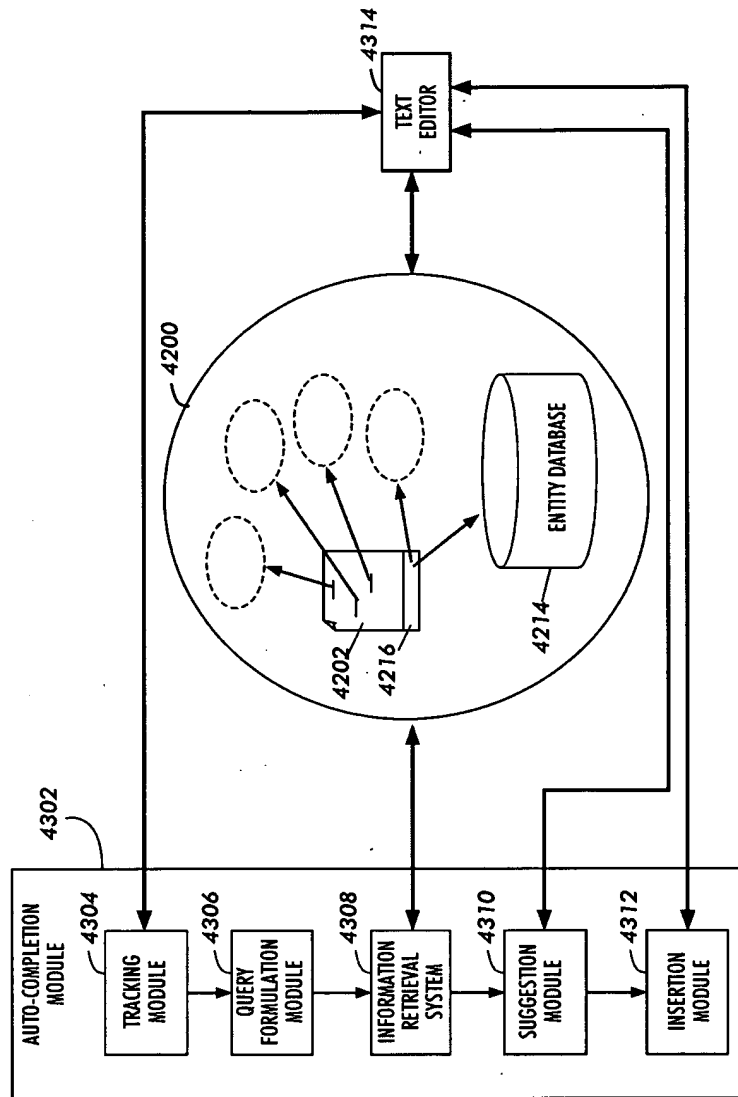


FIG. 43

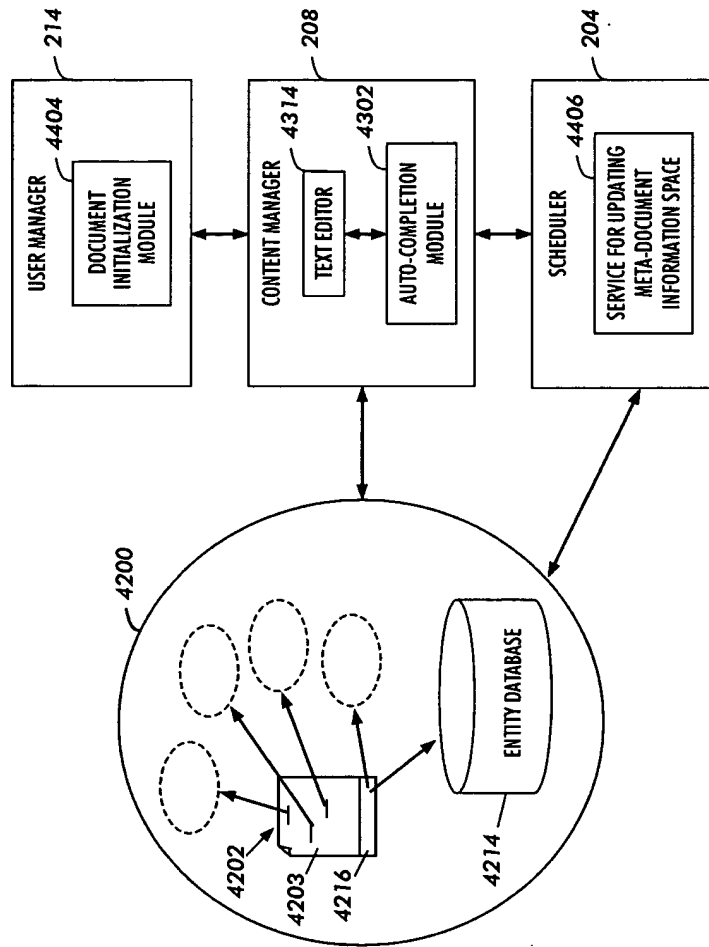


FIG. 44

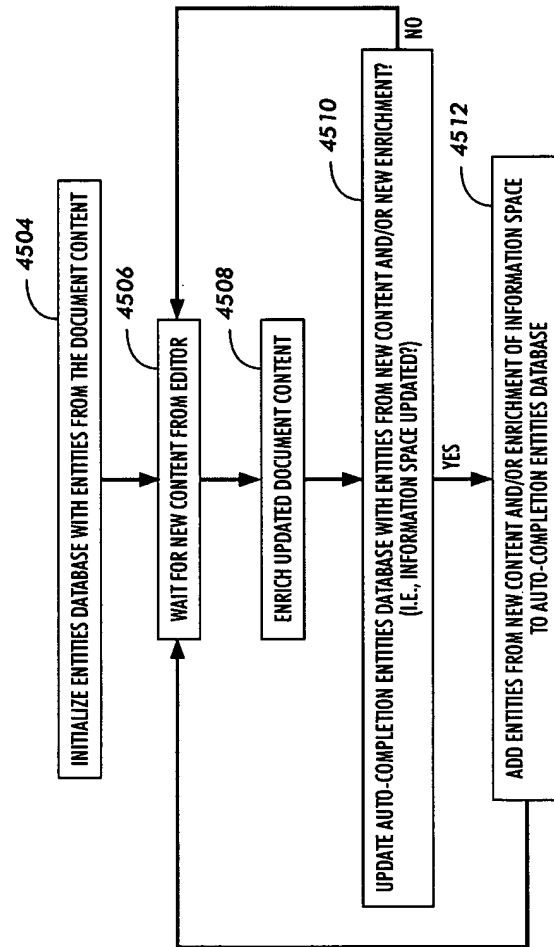


FIG. 45

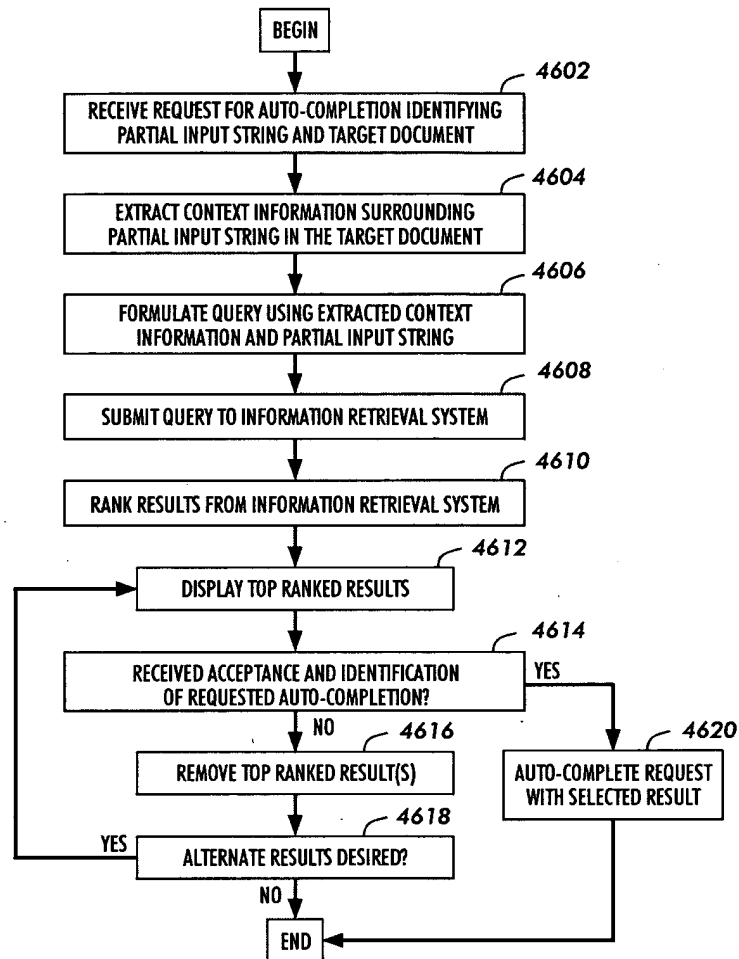
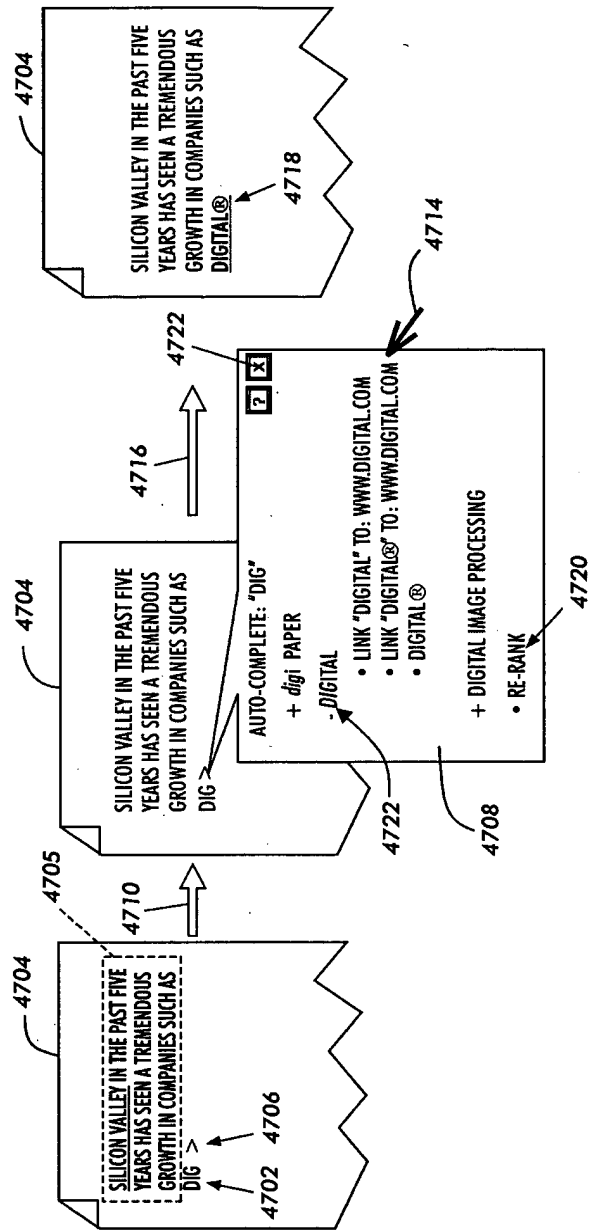


FIG. 46



(A) KEY	(B) ENTITY	(C) MARKUP	(D) FORMAT	(E) ORIGIN	(F) ORIGIN POSITION	(G) PART OF SPEECH	(H) CONTEXT
Sili	Silicon Valley	www.siliconvalley.com	Capitalize	TARGET DOCUMENT CONTENT	1	Noun	Science
Dig	Digital	www.digital.com	®	www.digital.com	434	Adjective	Science
Dig	DigiPaper	NONE	Bold	www.parc.xerox.com	23	Noun	Science
Dig	digress	NONE	NONE	www.nytimes.com	343	Verb	Politics
...	...	...	...	...	...	...	...

FIG. 48

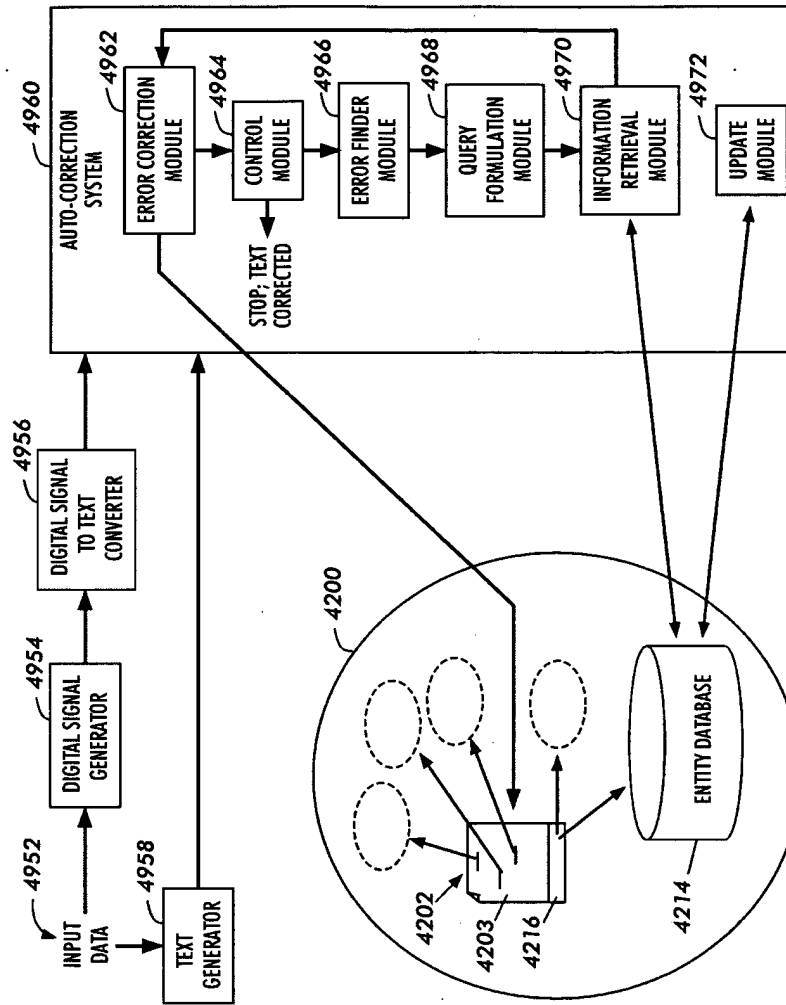


FIG. 49

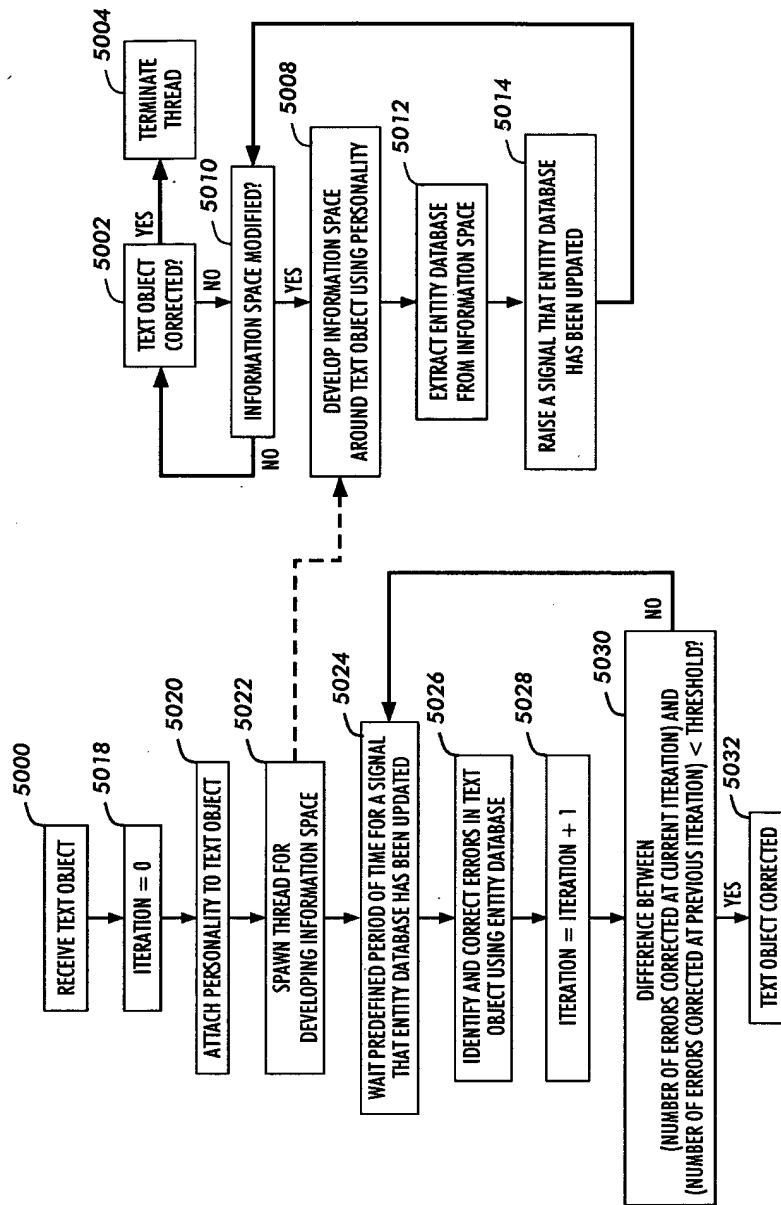


FIG. 50

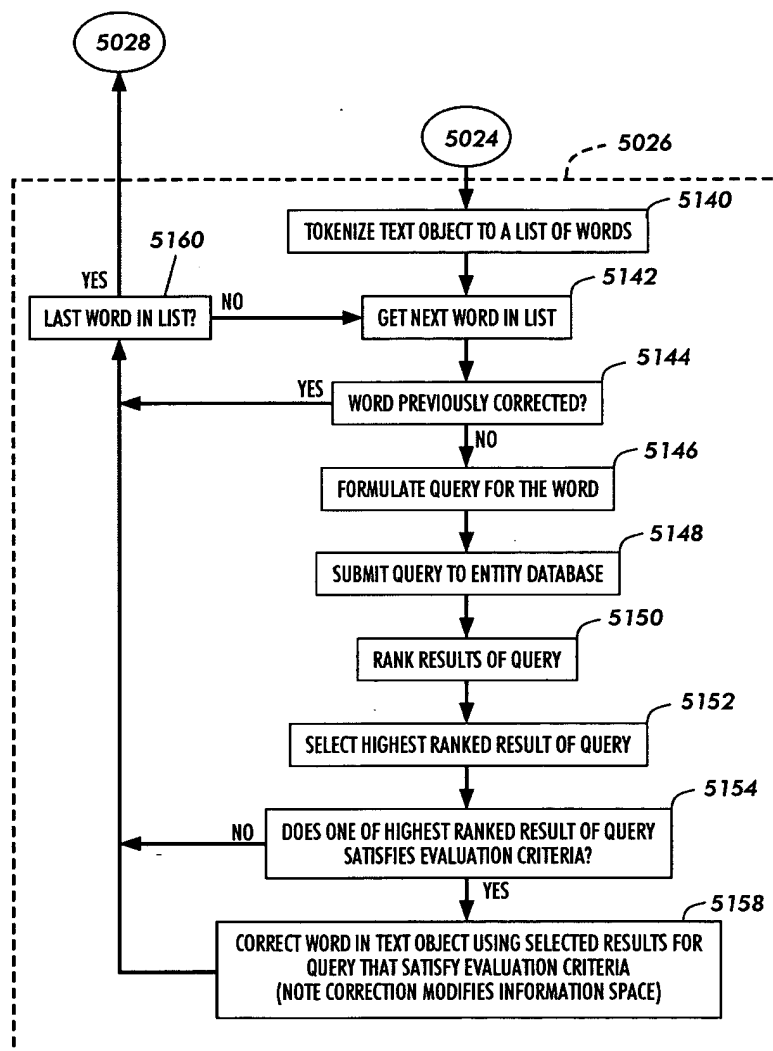


FIG. 51

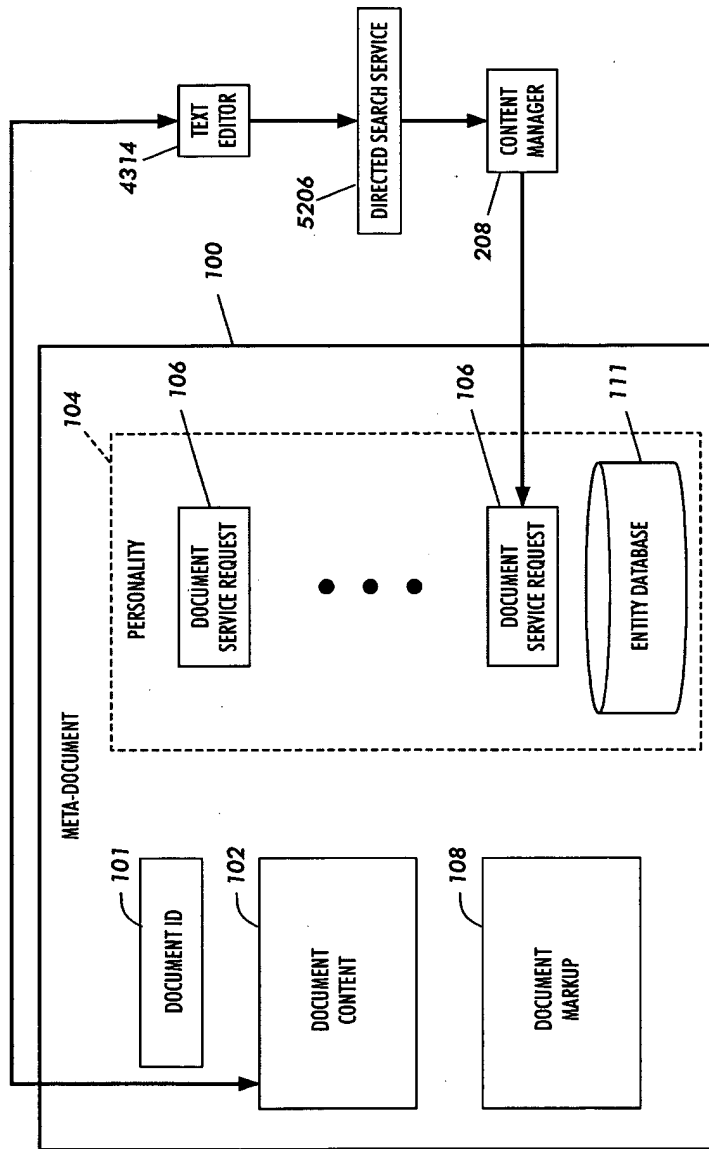


FIG. 52

5300

**DIRECTED SEARCH**

5302 Get:  For:  5304

5306 Insert Result as: ☐ Link ☒ Content ☐ Metadata

5308 Update Frequency:

5310 Select Providers

☒ Reuters  
☐ Thomson  
☐ Hoover

5312 Ensures:

Language of text is:

☒ Premium ☐ Non-Premium

☐ Low Quality ☒ High Quality

☐ Copyrighted ☒ Not Copyrighted

☐ Free ☒ Paid Max price \$:

Maximum number of words:

5318 Search Selected Providers By:

5320 ☒ Cost

5322 ☐ Speed

5314 Location Of Results:

☒ After Current Selection

☐ Before Current Selection

☐ As Comment To Current Selection

☐ As Footnote To Current Selection

5315 Current Selection Is:

5317 Xerox in the past five years has seen tremendous growth

5316

FIG. 53

5400

```
<service id='Products'
  refresh=30
  insert='Content'
  language='En'
  quality='Premium&High&Not-copyrighted&paid'
  maxprice='50'
  maxwords='2000'
  search='cost'>
  <entity>Xerox
    <offsets>13 18 456 461 710 715</offsets>
    <provider name='Thomson' id=18></provider>
    <provider name='Reuters' id=19></provider>
  </entity>
</service>
```

FIG. 54

5500

IMPORT/EXPORT

EXPORT NAME:   5502

EXPORT:

- ☒ ORIGINAL DOCUMENT CONTENT
- ☒ DOCUMENT MARKUP (I.E., ENRICHMENT)
- ☒ PERSONALITIES

5504

5506

5508

☐ IMPORT NAME:   5512

IMPORT:

- ☒ ALL CONTENT
- ☐ SELECTED CONTENT ONLY
  - ☐ ORIGINAL DOCUMENT CONTENT
  - ☐ DOCUMENT MARKUP (I.E., ENRICHMENT)
  - ☐ PERSONALITIES

5510

☒ BIND UN-MATCHED ELEMENTS

☒ ENHANCE BOUND ELEMENTS WITH EXISTING SERVICE PROVIDERS

5514

FIG. 55

```

<!-- SERVER ID>
<docsouls:serverid> DS v1.0 server name </docsouls:serverid>
  <!-- PROPERTIES OF DOCUMENT>
    <docsouls:docid> xxx </docsouls:docid>
    <docsouls:name> xxx </docsouls:name>
    <docsouls:owner> xxx </docsouls:owner>
  ...
  <!-- ORIGINAL DOCUMENTS DOCUMENT CONTENT>
    <docsouls:originaldoc format="HTML">toto.html</docsouls:originaldoc>
    <docsouls:browsingdoc format="HTML">browse.html</docsouls:browsingdoc>
  ...
<!-- LIST OF PERSONALITIES AND DOCUMENT SERVICE REQUESTS>
<docsouls:endowmentdescription>
  <!-- LIST OF PERSONALITIES>
    <docsouls:personality id = " " name=" " etc.>
      <docsouls:service id=" " name=" " etc.>
        <docsouls:provider name=" " etc.>
          <docsouls:provider name=" " etc.>
        </docsouls:service>
      </docsouls:personality>
    ...
    <!-- LIST OF SERVICE REQUESTS>
      <docsouls:service id=" " name=" " etc.>
        <docsouls:provider name=" " etc.>
          <docsouls:provider name=" " etc.>
        </docsouls:service>
      ...
    </docsouls:endowmentdescription>

```

FIG. 56

```

<!-- DESCRIPTIONS OF PERSONALITIES>
<docsouls:personalitydescription>
  <docsouls:id> xx </docsouls:id>
  <!-- all the fields AND service categories>
  <docsouls:servicecategory id="" name = "">
</docsouls:personalitydescription>

<!-- NEXT PERSONALITY DESCRIPTION>
...

<!-- DESCRIPTION OF DOCUMENT SERVICE REQUESTS>
<docsouls:servicedescription>
  <docsouls:id> xx </docsouls:id>
  <!-- list all fields (e.g., "refresh period", category, etc.)>
  <!-- list all providers>
  <docsouls:provider id="" name = "">
  <!-- list all strategies>
  <!-- list status of services (original, frozen, mapped, etc.)>
  <docsouls:servicestatus status="mapped" originalid="" originalserver="">
  <!-- list ServerId if the service was not available on current server>
  <docsouls:serverid></docsouls:serverid>
</docsouls:servicedescription>

<!-- NEXT SERVICE REQUESTS DESCRIPTION>
...

```

FIG. 57

```

<!-- DESCRIPTION OF PROVIDERS >
<docsouls:providerdescription>
  <docsouls:id> xx </docsouls:id>
  <!-- all the fields e.g. key, URL, etc.>
</docsouls:providerdescription >

<!-- DESCRIPTION OF DICTIONARIES >
<docsouls:dictionarydescription>
  <docsouls:id> xx </docsouls:id>
  <!-- all the fields, e.g. category>
</docsouls:dictionarydescription>

<!-- DESCRIPTION OF STRATEGY >
<docsouls:strategydescription>
  <docsouls:id> xx </docsouls:id>
  <!--all the fields>
  <!--all the dictionaries>
</docsouls:strategydescription>

<!-- RESULTS OF GLOBAL SERVICES >
<docsouls:globalservice id="Summary">
  <docsouls:link> xxx </docsouls:link>
  <docsouls:content> xxx </docsouls:content>
</docsouls:globalservice>

<!-- OTHER RESULTS (E.G. KEYWORDS, CATEGORIES, ETC.) >

```

FIG. 58A

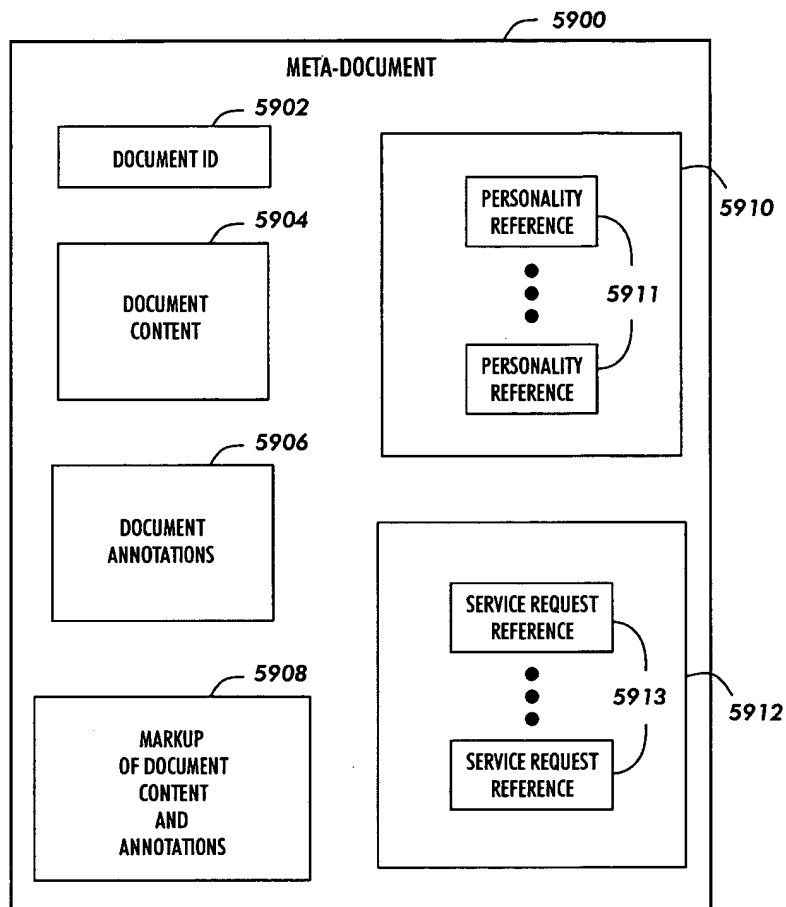
```

<!-- (OPTIONAL) DESCRIPTION OF ENRICHMENT PERFORMED AT OTHER DOCUMENT ENRICHMENT
SYSTEMS>
<docsouls:serverid>olderServerId</docsouls:serverid>
<docsouls:personalitydescription>...</docsouls:personalitydescription>
<docsouls:servicedescription>...</docsouls:servicedescription>

<!-- (OPTIONAL) LIST OF RESULTS OF THE LAST ENRICHMENT>
<!-- IDENTIFY DOCUMENT SECTION IN CASE OF MULTI-PART DOC>
<docsouls:docpart>main frame.html</docsouls:docpart>
<!-- OFFSET WHEN ENRICHMENT APPLIES TO A SECTION>
<docsouls:offset> 0 200 </docsouls:offset>
<!-- STATUS OF SERVICE APPLIED ("ACTIVE" OR "FROZEN")>
<docsouls:service id="StockQuote" status="active">
  <!-- ENTITY>
    <docsouls:entity>Xerox
      <!-- NORMALIZED FORM>
        <docsouls:normform>Xerox</docsouls:normform>
      <!-- LIST OF OFFSETS WHERE ENTITY IS FOUND IN TEXT RELATIVE TO SECTION>
        <docsouls:offsets start=35 end=40 />
        <docsouls:offsets start=232 end=237 />
      <!-- DICTIONARIES>
        <docsouls:dict> xxx </docsouls:dict>
      <!-- STRATEGIES>
        <docsouls:strat> xxx </docsouls:strat>
      <!-- LINK INFORMATION>
        <docsouls:link> xxx </docsouls:link>
      <!-- CONTENT INFORMATION>
        <docsouls:content> xxx </docsouls:content>
    </docsouls:entity>
  <!-- NEXT ENTITY>
    ...
</docsouls:service>

```

FIG. 58B

**FIG. 59**

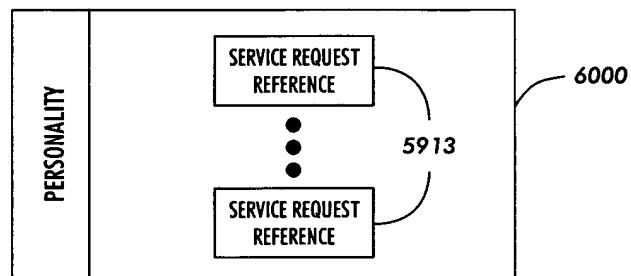


FIG. 60

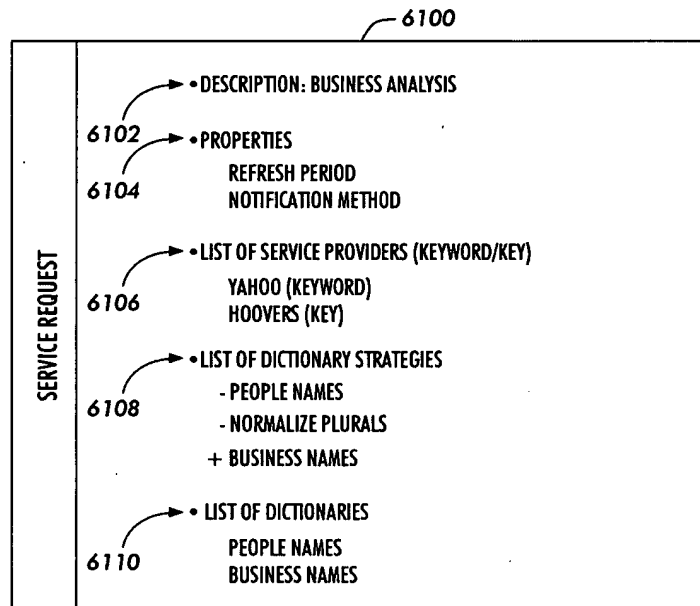


FIG. 61



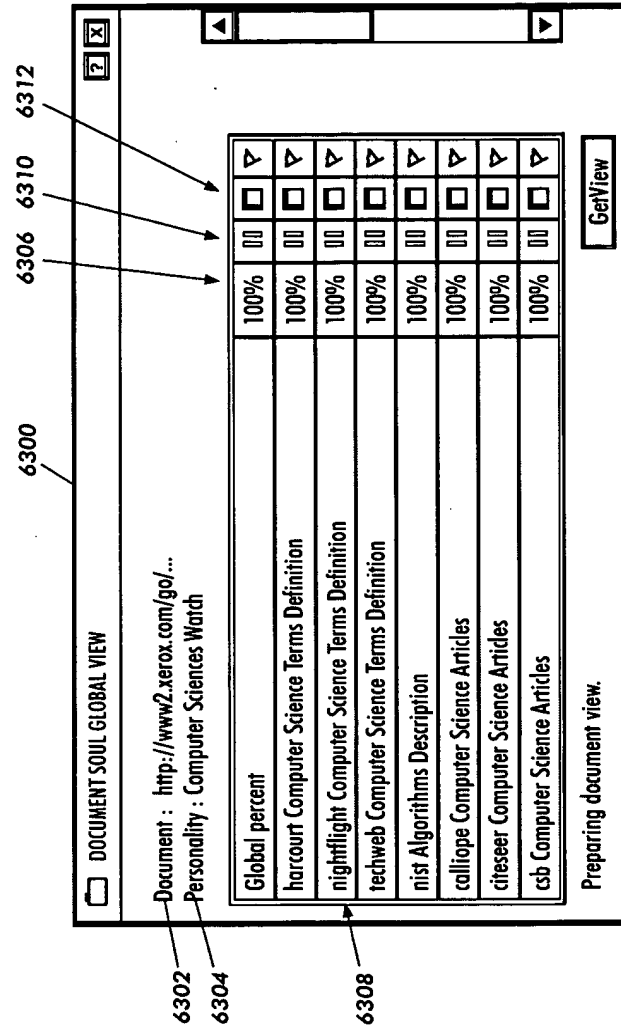


FIG. 63

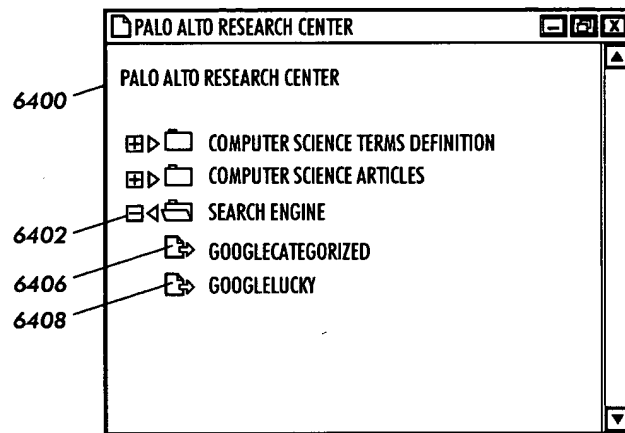


FIG. 64

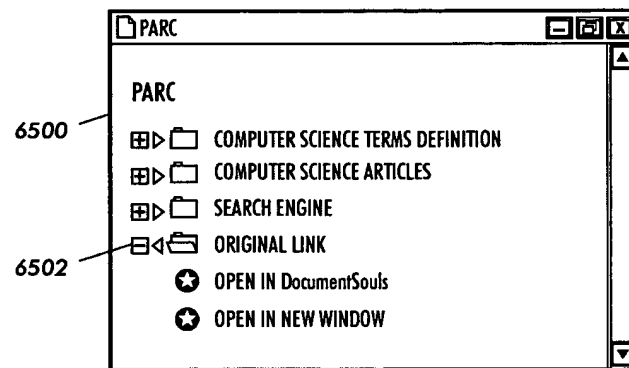


FIG. 65

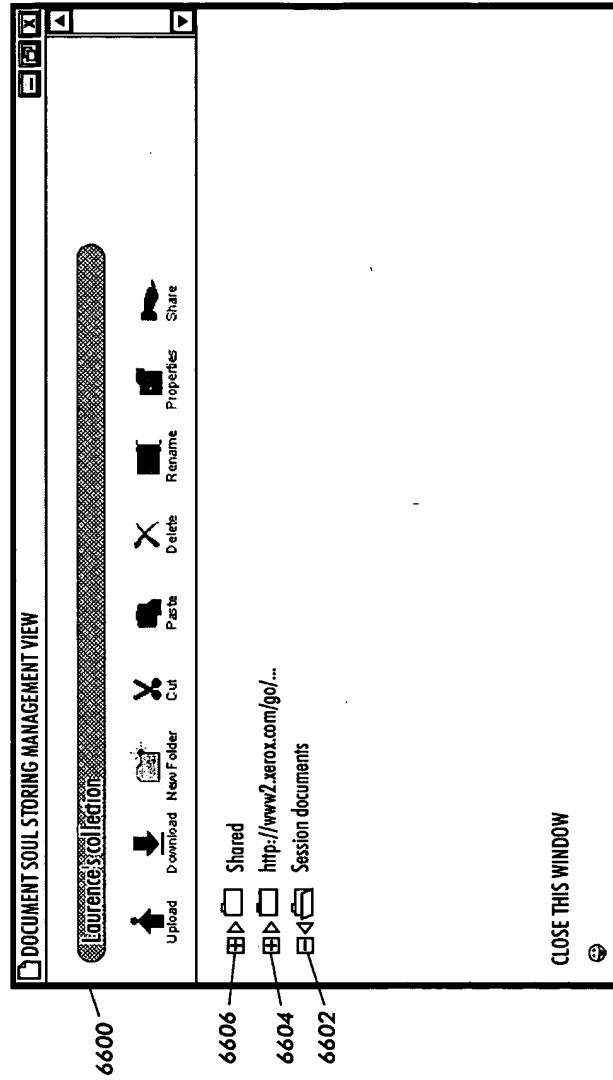


FIG. 66

DOCUMENT SOUL MARKING OPTIONS

**Marking and Enrichment options:**

Add an enrich button to your browser: Enrich with DocSoulz (drag & drop this link to your toolbar, Unix Netscape user: right click on the link and choose **add bookmark for link** then edit your bookmark and rename it)

Default personality:

☐ Choose default personality: Computer Sciences Watch

☒ Always ask for personality

Color of marked words:

☐ Automatically enrich any uploaded document with the default personality

☒ Enrich followed links

SUBMIT CANCEL

6700

6702

6704

6706

6708

6710

FIG. 67

DOCUMENT SOUL SERVICES CONFIGURATION

6800 List of available service categories:

Abstracts

Abstracts from Companies	STANDARD	Unknown	LOW	USPATENT OFFICE	BASED ON	LINK	LINK
Abstracts from Websites PA	STANDARD	Unknown	LOW	USPATENT OFFICE	BASED ON	LINK	LINK
Industry Standards							
Patents and I's							
Engineering Handbooks							
Technical News							
Technical Information							

6802

List of all Abstracts from Compendex dictionaries:

Name	Category	Select
electricalEngineering	/Science/Technology/	<input checked="" type="checkbox"/>
names	?Society/People/	<input checked="" type="checkbox"/>

6804

FIG. 68